

AMERICAN AGRICULTURIST,

FOR THE

Farm, Garden, and Household.

"AGRICULTURE IS THE MOST HEALTHFUL, MOST USEFUL, AND MOST NOBLE EMPLOYMENT OF MAN."—WASHINGTON.

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Notes and Suggestions for the Month.

The Twins (Gemini) rule the month of May, according to the notions of ancient astronomers. The constellation is marked by two very bright stars, Castor and Pollux, named from twin brothers of renown in Greece, the latter of whom greatly excelled in boxing, as his brother did in horsemanship. Thus strength and skill are properly symbolized by the sign Gemini. Nowhere do they more need to be associated than in the cultivation of the soil. Until within a comparatively recent period, almost the only skill developed on the farm was that of mere handicraft, and he was counted a good farmer who could strike a straight and well finished furrow, swing the scythe deftly, and readily perform other mechanical operations in agricultural labor. But the fertilizing tide of improvement has quickened the growth of ideas in this sphere, as elsewhere, and the present style of the best farming gives full scope to the highest ability of mind, as well as skill of hands. The operations needing attention the present month are too numerous to allow of the full discussion which this topic invites, and we pass to the notice of more pressing practical matters.

Work for the Farm, Barn, and Stock Yard.

At this season, work accumulates faster than it can be done, as a general rule. A week of rain puts every thing back, and then the sun and wind dry the soil and push forward vegetation so that many a farmer gets nervous and

half sick, worrying over unavoidable delays. Any man who has two or three teams, and as many as four or five hands to keep employed, may well spare himself much physical labor while he *plans* for the constant diligent employment of his men and teams. If every laborer knows exactly what is expected of him, that an account of his time is kept, and that his wasted hours and minutes count to his discredit, if not to the decrease of his wages, he will be very likely to be a better and more faithful servant. The amount of labor accomplished under a systematic plan, (according to which the work not only of each day but of each man and team is laid out in general a week ahead, as we know to be the case on some farms,) is much greater than when the farmer plans his day's work during the evening beforehand, or perhaps defers it until after sunrise in the morning.

Barn-yards ought to be so drained that all the wash may be saved, not by leading it out upon some piece of grass, but so that the liquid may be used for wetting the manure heap, or for watering the vegetables of the garden, or for distribution by means of some sort of watering cask, over grass, grain, or root crops in the field. Strong fences, clean sheds, and tidy tool houses ought to surround the barn-yard, and every preparation should be made for making and saving manure in the very best condition for use.

Barometer.—This instrument closely watched, taken in connection with accurate observations of the winds, clouds, etc., is a great help to the farmer in prognosticating changes of weather, and may be relied upon independently of other "signs" to give notice of sudden and violent showers coming unexpectedly on pleasant days.

Beans.—See article on field beans on page 138.

Bees.—Bee-keepers of course read the excellent hints given under the head "Apiary" (page 132 in this number) and others will usually find their perusal both interesting and profitable.

Bones should never be wasted on a farm or by any one having even a square-rod garden-spot. Throw them into heaps with a mixture of horse manure, and suffer the whole mass to ferment.

Broom Corn.—Plant the dwarf variety if it can be procured. See the article on page 138.

Buildings.—Decaying matter in contact with the timbers or boarding of buildings causes decay to commence, which continues to progress after the first cause has been mainly removed.

Cabbages.—Sow for main crop, Flat Dutch, Drumhead, or Stone Mason, in good garden soil. The crop pays at 1½ cents per head as feed for stock; 2 to 5 cents is the market price. An excellent crop for reclaimed swamp land, newly cleared wood land, or soil rich in vegetable mold.

Carrots.—Sow early, in well prepared soil. Look at "Notes" in former numbers, and page 108 last number for estimate of value and culture.

Cattle, Cows, Calves, etc.—Give the pasture a good start before turning stock upon it. The grass makes roots and strengthens itself to endure the drouths of summer at this time, and a week's feed taken too soon now, is paid for by short pasture, and likely enough many barren spots before September. Keep up the flow of milk by feeding roots if possible, perhaps rye as soon as a good swath can be mown, cut-feed, straw, or stalks, sprinkled with corn meal or oil cake, or in some other way. "Spare the calves." The high prices of butter, cheese, milk, etc., will tempt many farmers to "deacon" their calves, to the detriment of the herd and to their own sorrow two years hence. Get them as soon as possible accustomed to do without milk, or take only skimmed milk. Calves should have access to a variety of feed; sweet hay, clover, oat and pea straw, are a good variety, and a few oats will be relished, before grass starts.

Chimneys.—Burn them out on some rainy day.

Clover.—Good success has been met with where clover has been sown after the ground is thoroughly settled and warm. More seeds are said to germinate and a better set to be obtained.

Cotton.—In congenial latitudes, sow as soon as the ground can be put in order. At the North, sow in protected beds, or under gauze frames; transplant like tobacco when there is no longer danger of frost. If sowed early in May, it may be transplanted in 4 or 5 weeks. Soak the seed in brine and roll in ashes and plaster. Occasional waterings with liquid manure are desirable at the North, to force a rapid growth.

Corn.—See articles on pages 137, 138 and 147. Some of the improved cultivators and horse-hoes will save nearly all the hand labor.

Dairy.—See article on "Soiling Dairy Cows," page 141. Some good business men from each dairy neighborhood should this season look into the operation of: 1st. The Associated Cheese Dairies, and Cheese Factories.—2d. Borden's plan of condensing milk.—3d. Some plan of association for butter-making. Keep good cows.

Draining.—Never lose sight of the advantages which thorough draining brings with it; and plan all changes and culture with a view to a systematic withdrawal of the water from the subsoil at the earliest opportunity.

Flax.—See article in April *Agriculturist*, page 110. It is often sown to advantage any time during the present month, but better earlier.

Fences.—During this month prepare the ground for line fences, and transplant deciduous hedge plants, such as the Osage Orange, the Thorn Locust, the Buckthorn and native thorns.

Grain Fields, if backward, may be encouraged by a good dusting with plaster, and by application of Chili saltpeter, or sulphate of ammonia. See note in another place on liquid manure.

Hedge Rows and Fence Corners.—If you disturb

these nurseries of weeds at this season, your stock of certain vile sorts may run out. But if all brush and weeds be cut up clean, the ground plowed and planted with potatoes, with no manure but lime plowed in and, perhaps, ashes in the hill, and if it be kept well tilled until the vines cover the ground, the weeds will be very likely to disappear.

Hemp.—Sow 1 bushel to 5 pecks of heavy, bright, last year's seed to the acre, on good wheat soil; harrow in and roll. It is better to sow in drills if the soil be smooth, particularly if you are belated. For seed, hemp is best sown in hills about $3\frac{1}{2}$ to 4 feet apart. About a dozen plants should start in each hill, which thin to 3 or 4 thrifty plants, and after blossoming, to 1 or 2 good female plants.

Horses.—Do not let young mares or spirited ones in foal and near their time run together, lest in play they over-exert themselves. Give generous fare, but not corn or corn meal alone; steamed oats, bran, or shorts wet up are preferable. When the foal is dropped, a bran mash may be given, and a feed of oats and good hay ad libitum, unless grass is abundant. If the mare be at pasture, either provide protected shelter, or bring her to the stable, when cold storms threaten. The weather of the last of the month is usually favorable for castration of yearlings, or two-year-olds—an operation, however, unnecessary in some cases, which we deprecate for farm horses and for those required for army use. Much of the courage, endurance, and power of the horse is lost in the gelding.

Irrigation.—Its advantages are second only to those of draining, and in combination with it, its effects are astonishing. Study to secure means for establishing a partial, if not thorough system.

Lucerne.—Sow in drills on good soil (old corn ground), underdrained, or with an open sub-soil. Weeds must not be allowed to smother or stint the growth of the young plants the first year. On rich land the crop of hay is immense,—4 to 6 tons from three or four cuttings and nearly equal to clover hay.

Manure.—Turn every thing corruptible to account. Lead road washings upon land adjoining, and provide for its extensive distribution.

Liquid Manure.—The valuable of soluble manure dissolved in much water and applied by irrigation or sprinkling to the grass crop is very great. Set a tank or cement cistern in the barn-yard which will catch the wash of the yard and receive other supplies of water if needed. Provide pump and sprinkling cart for distributing it. Bring to the required strength by pumping it over and allowing it to leach through a manure heap, or by diluting with water. Distribute freely over grass in any weather.

Mowings.—The grass crop is worth in the aggregate much more than any other staple product of the United States. Use every means to increase it. Light dressings of salt, ashes, plaster, bone dust, refuse saltpeter, liquid manure, etc., often add greatly to the crop.

Oats.—It is seldom desirable to sow oats after the first week in May. If they must be sown late, sow two bushels of peas to the acre with them, and cut and cure the whole for fodder if the oats fill poorly.

Onions.—See notes in April and in Onion book.

Peas.—See the article on page 107, in last number.

Parsnips.—Sow for field culture in rich, deep soil, in drills 20 inches apart, and drop the seeds 2 inches apart in the drills, to be subsequently thinned to 2 plants to the running foot. A very valuable feed for milch cows coming in in spring, before grass starts, and during winter. They require no storage, as they keep well in the soil, and can be dug for use whenever the frost is out of the ground.

Plowing.—If possible, deepen the soil by running the plow an inch deeper than before, and sub-soil when practicable. Thus you save your crops from the worst effects of drought.

Poultry.—We might fill our journal every month with testimony showing that a good poultry house and great care of the chickens pays better than almost any other expenditure of labor on the farm.

Pumpkins.—The corn field is not the only place on the farm where pumpkins will grow. Planted in well prepared holes, 3 feet in diameter, on sunny, stony banks, or in spots where the grass cannot be cut, and cultivation of other crops is difficult,

much good fruit may be secured. They do well by themselves in hills 5 to 6 feet apart each way.

Root Crop.—See note on parsnips. Mangel Wurtzel and Sugar Beet seed should be well soaked, rolled in plaster to dry them, and sowed with a good drill, in rows 2 feet apart. Have the seeds dropped thickly, and afterward thin mangel wurtzels to 8 inches, and sugar beets to 6 inches apart, at least. The sowing of Rutabagas may well be delayed until the first to the middle of June.

Sheep.—Give early lambs generous diet, so as to have them ready for the butcher by green pea time. Where sheep will not do serious damage to the grass by feeding it off close too early, they will gnaw down the bushes very thoroughly, and thrive upon the diet. Shear without washing, for the various reasons enumerated on page 139.

Soiling.—See article in this number on page 141.

Sorghum.—Plant in hills or drills $3\frac{1}{2}$ feet apart, the latter preferable usually, the plants being thinned to 8 to 10 inches apart, or to 5 in a hill. Soak the seed nearly to sprouting, roll in plaster, and plant a little earlier than corn. It bears transplanting and may therefore be sown in protected beds and transplanted. Soil and culture same as field corn.

Swine.—Keep as many as can be quartered comfortably in a pen under cover, to work over sods, muck or peat, weeds, etc., supplied every few days; encourage them to work diligently by dropping handfuls of corn into holes made by a crow bar. There will be little or no corn wasted. Working hogs should not be "rung" or "tamed" till fatting.

Tobacco.—Water the seed bed with liquid manure, pull weeds that show themselves, prepare soil by plowing in all the stable manure, home-made pouddrette, fish compost, etc., you can afford, and make it rich in some way. Bone dust, ashes, and gypsum, in pretty liberal quantities, will be found beneficial. Harrow the ground if weeds start, so as to kill them and induce the starting of others before the plants are set out—next month.

Tools.—Numerous valuable improvements in farm implements have been brought out recently. To be able to designate all the best, one would have to devote himself entirely to their study, or be liable to do great injustice. Farmers must, to a considerable extent, investigate and decide for themselves.

Orchard and Nursery.

At the time of making up the Calendar it looks as if much of the work of planting would be deferred until May. The taking up and planting of trees can be continued until the buds have started into growth. Of course nursery stock which is to be packed and sent to any great distance, should be as dormant as possible. In well regulated nurseries, enough to meet all probable demands is taken up and heeled in, and thus kept back. Trees which have been a long time in transportation are apt to become either dried, or heated and caused to start. If planted out without any previous preparation, a good share will be lost, while with a little care all may be saved. In case of shriveled trees, remove them from the packing, open a trench and bury the whole, roots, tops, and all, and leave them several days or a week. When taken out they will be found plump and as good as new. When from heating, the buds have started into growth, they will sometimes put out sickly shoots several inches long; the only remedy is severe cutting back. Reduce the tree to a mere stake if need be, to insure a new and vigorous growth. The hints in March and April Calendars may be read again with profit, as there are many which are applicable now especially at the North.

Budded Stocks.—If the buds are plump and sound, cut back the stock to within three inches of the bud. This leaves a convenient support for tying the new shoot to, after it starts into growth.

Cuttings of currants and other shrubs and of quince and grape are to be put out in well worked, rich soil, taking care to press the earth firmly around the base of the cuttings.

Evergreens.—These are best transplanted as they are making their growth. In all cases, great care should be taken that the roots do not become dry,

for unlike other trees, they will never recover. When to be set out near the place from which they are taken, secure a good ball of earth, and if to be sent to a distance, put the roots *immediately* into damp moss. Hemlocks are usually more difficult to transplant than others. Wait until the young growth has made at least half an inch. Give vegetable mould, such as earth from the woods, or muck that has been weathered, to newly planted trees. The established ones will thank you for a dressing of well decomposed manure. A few large stones placed over the roots are better than stakes.

Grafting.—Full directions were given in March. If the cions were cut early and well preserved, the operation can be done this month as well as at any other time. When grafting is done late, care must be taken, in sawing off limbs, not to strip the bark.

Heading Back.—This should be done to those limbs which are inclined to outgrow their fellows. Dwarf pears are kept dwarf by cutting back the strong growth at least one-half. Peach trees should have one-third the previous year's growth removed.

Insects.—The eggs deposited last year will soon produce their brood. Begin offensive operations at once, or it will soon be necessary to act on the defensive. Wipe out nests as soon as they are found, with a strong solution of potash upon a swab. As soon as millers or moths of any kind appear, set common kerosene or other lamps in pans of water about the orchard. The insects will dash against the chimnies and fall into the water. If the trunks of the trees have not already been washed with a strong solution of soft soap, do it now, on a damp day. Probe out the borers.

Layering.—This may be done now with last year's shoots of quince, ornamental shrubs, and all plants multiplied in this way.—See directions under *Fruit Garden* for treatment of grape vines.

Mulching.—It will benefit all newly planted trees to give them a mulch of some kind to protect their roots during the dry time which frequently occurs in spring. Litter of any kind, tan, sawdust, or chips from the wood-yard, will answer. Give a covering over the surface as far as the roots extend.

Orchards.—In properly managed orchards, there will be no work for anything but the knife. If large limbs must be taken off, leave them until summer. In cultivating orchards, especially young ones, do it for the benefit of the trees rather than for profit from the crop. Hoed crops of a character which will not exhaust the soil, may be beneficial rather than otherwise. Keep them however at a good distance from the roots of the trees.

Peaches and Apricots.—These and other stone fruits, as Almonds, Nectarines, and Cherries may still be set out, if they have not started too much.

Peach Trees.—Apply ashes and attend to borers, as directed last month.

Pears.—Plant dwarfs in the garden and standards for orchard culture. Head back last year's growth and allow no fruit to grow during the first season.

Plow.—Use the plow and cultivator between nursery rows, and keep ahead of weeds. Pad the ends of the whiffle trees to avoid injuring the trees. Allow no careless hand to plow in orchard or nursery.

Seed-beds.—Seeds of trees and shrubs should be sown as soon as the ground is ready. Most seedlings of forest trees, and those of evergreens especially, need shading during their early growth, as recommended in February, on page 50.

Stocks.—Those grafted during the winter are to be put out, with a dibble, or by opening a trench.

Kitchen Garden.

Work presses here and the question is, what to do first. Rather large experience has shown us that nothing is gained by hurrying the work in advance of the season. It takes a certain length of time for the ground to get into a suitable condition. It must drain, settle, and warm, before most seeds can be sown. Any previous preparations, such as draining, trenching, etc., which will promote these changes, will now be appreciated. Many of the hints given in the April Calendar will be timely now. It should be borne in mind that these remarks are always written on a sort of sliding scale, with the previous and following month in view,

and this is the way in which they should be read, not as positive directions, but as suggestions applicable, as the almanacs say, "about these times."

Artichoke.—By this we mean not the sunflower like plant which produces a tuber, but one which produces a great, thistle-like, eatable head. It is one of the refinements of horticulture, not to be commended except to the curious in such matters. New beds may be started from the seed and by offsets from old plants. Fork manure into established beds.

Asparagus.—Cut as soon as the shoots appear, and keep doing so as long as it is considered advisable to continue the cutting. In cutting, be careful not to injure the starting buds. The English gardeners use a knife with a saw-like edge, as they consider this leaves a wound less likely to bleed than a smooth cut. If for market, do not send it loose, but put it in neat bunches, 4 to 6 inches in diameter, according to the season, and cut the lower ends square. Tie with two strings, one near the top, the other near the bottom, with bass matting or soft twine. Send this, and indeed every other vegetable, to market washed perfectly clean.

Beans.—If the early plantings have been cut off by frost, renew them. Put out the poles for runners before planting the seed. As soon as frosts are over, set out Lima which have been started in sods or pots. It is well known that these or any other beans can be readily transplanted to fill deficiencies. We have seen Lima beans successfully grown on a trellis of lath, five feet high, cutting off all the runners which came above the trellis and keeping the plant dwarf. The experiment is worth trying by those who have no poles.

Beets. The early sorts should be weeded and thinned as soon as large enough to work among. From the nature of the beet seed two or three plants will grow very close together. In thinning, this should be looked out for and only one be allowed to grow to the foot. When the plants get larger the thinning make good greens.

Borecole, or Kale.—This is seldom wanted early. Treat for early or late the same as cabbages.

Brocoli; Brussels Sprouts.—Treat as cauliflower.

Cabbages.—The early sorts will usually be ready to transplant this month. See directions given last month. Sow both early and late sorts in the open ground. Commence hoeing soon after the plants are put out. In setting plants, reject those which have lost their centre bud or growing point. We would again call attention to the Winningstadt as a superior medium early and late variety. There is no other sort suited better for light soil.

Capsicums or Peppers.—Do not set out from the hot-bed until the weather is thoroughly settled; they are very sensitive to cold. Seed for a late crop may still be sown in a cold-frame or hot-bed.

Carroon is to be treated the same as artichoke.

Carrots.—If the early sowing was not made last month, it should be made at once. As soon as the plants can be seen, put a push or missionary hoe, or other weeder, through the rows. Thin out as early as the plants can be handled, to from four to six inches in the rows. Keep weeding.

Cauliflower.—See directions on page 116, last month. Set out in rich ground as soon as hard frosts are over. Hoe often. When growing give liquid manure. The best crop we ever saw was on a patch from which hot-beds had been removed.

Celery.—Follow the directions given last month.

Cold-Frames.—Remove sash entirely during pleasant days. Give water with the chill off, as needed.

Compost Heaps.—It is not too early to think of accumulating a stock of compost for use next year. A good gardener always looks ahead. Have a dumping place, convenient of access, and out of sight if possible, where refuse animal and vegetable matter of all kinds can be deposited. If weeds are hoed, as they should be before they make seeds, they can be turned to good account here. Begin a heap now. There will be the litter from the asparagus and rhubarb beds, the spoiled cabbages, potatoes and roots which have not kept well, and a great variety of other matter to be added at once.

Corn.—Plant as soon as the soil is warm. A few hills may be started on sods in the hot-bed and set

out near the end of the month. See notes on varieties in following pages.

Cress.—Sow for succession; give ashes to young plants if troubled with insects.

Cucumbers.—Set out from the hot-bed when danger of frost is over. It is well then to cover the plants at night. A frame of boards covered with muslin, or four bricks placed around the plants with a pane of glass to cover them, will keep the ground warm during the night. A slight covering, even a newspaper thrown over the hill and kept by means of sticks from contact with the plant, will keep off a smart frost.

Egg Plant.—Do not transplant from hot-beds until the soil gets well warmed. If they grow too large, put them in small pots, or prick out under a cold-frame. When set out, give good, warm soil and thorough culture. Liquid manure, applied when the earth is moist, will help them.

Garlic.—Put out sets, or "cloves," as they are called, six inches apart, in about one foot rows.

Herbs.—Sow in open ground if warm, or under glass. See note on page 111, April *Agriculturist*.

Hot-Beds.—The plants will now be quite large. Set out if the season permits, or pot or prick out in a cold-frame. Overgrown plants will receive a severe check in transplanting, which it is best to avoid by removing them either to pots or another bed before they get too large. All the plants must be thinned, weeded, and have the soil stirred between the rows. Keep the sashes off during every warm day, but replace them before the soil cools.

Insects.—In many places a constant fight must be kept up. All plants of the cabbage family are apt to be attacked while young. A dusting of ashes, ashes and plaster, or air-slacked lime, given while the dew is on, will keep off most early pests. Entrap moths as directed under *Orchard and Nursery*.

Kohl-rabi.—Sow in open ground for main crop. The culture is every way the same as for cabbages.

Leeks.—See *Agriculturist* for April, on page 109.

Lettuce.—Transplant from hot-bed and cold-frame. Thin that sown in open ground, and sow for succession. Lettuce intended to head cannot be hoed too often. Liquid manure will give large results.

Liquid Manure.—If preparations are not made for this, do it at once. A barrel or cask will do. It may be sunk in the ground near a supply of water and kept full of an infusion of hen, sheep, or cow manure. Some prefer to set up a leach, but the liquid first obtained is very strong and needs to be diluted.

Martynia.—These most excellent pickles may be grown, as shown on page 113, last month.

Melons.—See article on page 146. Treat the early planted melons as directed for cucumbers.

Mushrooms.—Beds may be started at any time. An article on their culture is given on page 145.

Mustard.—Sow at intervals for a succession.

Nasturtiums, or Indian Cress.—These are not only useful as furnishing their unripe fruit for pickles, but showy and servicable to cover unsightly fences.

Okra.—Sow when the ground is warm, as directed on page 116, last month.

Onions.—If not already done, put in seeds,—tops, sets, and potato onions, according to April Calendar.

Parsley.—The seed is a long while in germinating and should have a good soaking in warm water before sowing. Some gardeners grow it as edgings to beds, where it makes a very neat appearance.

Parsnips.—Sow *fresh* seed any time this month.

Peas.—Repeat sowings of early sorts for succession and put in late sorts, such as Champion of England, and the Marrowsfats. Put brush to those needing it, and keep the crop well hoed, drawing earth towards the plants. If a pea vine once falls over, it seldom recovers its upright position.

Potatoes.—Still plant early sorts; hoe as soon as up.

Radishes.—Continue to sow in quick, warm soil. Dust with ashes if attacked by insects. If many worms are found at the roots, destroy the crop at once, as it is useless to look for good results.

Rhubarb.—Never cut, but pull with a sidewise twist. Newly established plants should now give a full supply. Allow newly planted all their leaves.

Salsify.—Sow, if not already done, and cultivate thin and weed the same as carrots. Put the manure down deep to insure a good crop.

Sea Kale.—See article on page 116, April number.

Seeds.—Roots and bulbs intended for seed should be put out early, in good soil, always keeping the different varieties of the same kind well apart.

Spinach.—Sow for succession. Hoe, weed, and thin that which is already up, as directed last month.

Squashes.—Treat early sorts as directed for cucumbers. The fall and winter kinds should have a well manured soil, as they throw out roots at the joints. Give plenty of plaster or air-slacked lime while young, and when older examine for squash bugs.

Sweet Potatoes.—Nothing is gained by putting them out too early. When grown in a small way it is cheapest to buy plants. Directions for starting them are given in April Calendar.

Tomatoes.—Transplant from hot-bed or cold-frame as soon as safe. They cannot stand the least frost. If plants in the frame get too large before they can be planted out, pot or prick out as directed last month. Sow seed for late crop in open ground. For early fruit rather poor soil, with sunny exposure.

Turnips.—Sow early sorts. If worms attack the roots destroy the crop and use the ground for something else. It is useless to try to grow early turnips when worms make their appearance.

Watermelons.—Read article on page 146. Mountain Sprout is earliest, Ice Cream best, and Black Spanish is fine where the season is long enough.

Weeds.—A good garden should not show a weed. A large garden should for the most part be planted in rows and cultivated by horse power. Keep something in motion which will stir the soil, be it cultivator, hoe, or any of the weeding machines. Plenty of manure and constant working are the two essentials after good seed has been sown.

Winter Cherry or Physalis.—Treat like tomatoes.

Fruit Garden.

The planting should have been done last month, but if it has been delayed from any cause, the work should be vigorously prosecuted at once.

Blackberries.—If planted now, cut back to within six inches of root. Tie up to trellises or stakes.

Currants.—Transplant, if possible, before growth starts. Set out cuttings, if not already done, as directed last month. Keep the soil around established bushes loose, and entirely free from weeds.

Dwarf Trees.—These of all kinds need heading back to keep them dwarf and compact. Set them where the roots can have all the ground.

Grapes.—Secure to the trellis with soft twine, lead wire, or some secure fastening. If buds have started, handle with great care. As the new growth pushes, keep it tied up with bass or other soft string. Rye straw makes a cheap and serviceable material for this purpose. It should be wetted when used. Put out cuttings of those kinds which can be propagated in this way. Layering is a surer mode of propagation. Preparations can be commenced as soon as the buds start. Take a strong shoot, which should have been cut back to six feet, in February or before, open a trench six inches deep and about as wide, and lay the vine in it, using pegs or other means to keep it in a horizontal position at the bottom of the trench. When the shoots have made three or four inches of growth, select those to be grown, leaving one to about a foot, and choose the strongest. Put strong stakes to each shoot, and when they have grown about a foot, fill soil into the trench enough to cover the layered vine about an inch. The trench is to have earth added about an inch at a time, at intervals of a week or so, until filled. See preceding numbers for varieties and directions for planting.

Raspberries.—Uncover the canes and tie to stakes, as directed last month. Give manure if not done.

Strawberries.—The bed should have been set out last month, but it may be done now. Set plants as directed in last month's Calendar. In hill culture the runners should be kept down. If the beds have been mulched with straw for the winter and it has been left on, according to the practice of some of our best cultivators, all that has to be done is to pull up the weeds which make their appearance through it. If there is no mulch, keep

the plants well hoed. A correspondent advises the use of strawberry plants as edging to beds. Where there is sufficient labor for this refinement, it may be well to give a neat appearance to the fruit garden. Longworth's Prolific has been named as a good variety for this purpose. It has strong foliage.

Weeds.—The fruit garden should be kept clear of these. The hoeing necessary to exterminate them will benefit the plants, whether shrubs or trees.

Flower Garden and Lawn.

All re-arranging and laying out and transplanting of trees and shrubs is to be hurried as rapidly as possible. It is well not to bring tender plants too early from the green house, as they do much better if left until after the ground is well warmed.

Annuals.—Those started under glass may be put out. Seeds of all, except the very tender sorts, may be sown in the open border.

Bulbs.—The bloom of hyacinths or tulips can be prolonged by shading from hot sun by cloth awning.

Box Edging.—Clip the old and set new. Propagate according to hints on page 148.

Bedding Plants.—Petunias, Verbenas, etc., may be put out; Heliotropes need quite warm weather.

Carnations.—Sow seed for a new stock. Set out from green-house or frame. Tie the flower stalks up to stakes to give support and neat appearance.

Climbers.—See page 146. Seeds of the Cypress Vine and some newer Morning-glories germinate better if soaked 12 hours in warm water, or having water poured over as hot as the hand can bear.

Dahlias.—Those already started should have the shoots taken off and potted as soon as they are large enough. If left till the present time, set the roots in a gentle hot-bed and cover with earth, or in a warm border, where they can be covered at night.

Dicentra spectabilis.—This (often incorrectly called Dicelytra) may be propagated by division of the roots. It is one of the finest of our perennials.

Evergreens.—Plant upon the lawn and as screens and hedges, as in hints given under Orchard and Nursery. Broad-leaved evergreens should not be forgotten. Holly, Rhododendrons, Laurel, and the little Daphne Cneorum are among useful ones.

Frames and Pits.—If the plants are not removed, they should now be left open every pleasant day.

Fuchsias.—Set in the border after the weather becomes warm. Give a partially shaded place, and keep them well tied up to stakes.

Geraniums.—Set out the bedding sorts. If well hardened, they will not mind the cool nights.

Gladiolus.—These bulbs make a fine show in the garden. Fine sorts may be had at moderate rates. Set the bulbs in clumps of half a dozen in good soil, with a sunny exposure. Plant 10 to 12 inches apart, and 2 inches deep.

Grass Edgings.—Clip with grass-hook or sickle as soon as large enough to cut, and trim the margins.

Gravel Walks.—Keep in order with rake and roller.

Hedges.—Complete setting the new and clip the old. Fill weak places by weaving in the branches.

Honeysuckles and other woody climbers, plant early. Put up and tie securely to trellises those removed for winter protection. Layer for increase.

Labels and Stakes.—Have a plenty at hand to mark every thing sown. Do not trust to memory. Dahlia stakes should be set out with the plant.

Lantanas.—These do best in a rather sandy soil, with plenty of sun. They grow rapidly and may be pegged down as bedding plants, or trained to bush form, to be potted in autumn and kept over winter.

Lawns.—Mow as soon as the grass will take the scythe. A good mower with a lawn scythe will make good work. There are hand and horse lawn mowers, but as the manufacturers do not announce themselves, we know not where they are to be had.

Mulch.—All newly planted trees will be benefited by covering the earth around them with any thing which will prevent evaporation. Stable litter, straw, haulm of beans and peas, chips, tan-bark, or saw-dust may be used. Even the early mowings of the lawn may be profitably used in this manner.

Lilles.—The different species of these, even when

planted in spring, make a fine show the same season. The different varieties of the Japan Lily are all beautiful; the bulbs are all perfectly hardy, and the flowers of all are finer than those of any other kinds. They should be in every garden, and will flourish in any good soil. The old White should not be forgotten, and our native sorts are improved by cultivation and are very showy.

Mignonette.—This is grown for its perfume, as the flowers are not showy. A bed of this and Candytuft make a good mixture, as one furnishes the fragrance while the other supplies the show.

Petunias.—These are among the most popular bedding plants. Good results may be had from seeds sown early, but the finer sorts can only be procured by cuttings in the green-house. The double varieties, if used as bedding plants, need much care, as their blooms are easily broken off.

Roses.—These may still be planted. Do not forget the old fashioned June roses. The now popular Remontants and Bourbons have nearly driven these old favorites from the gardens. Turn the Teas from the pots into the open border. Keep climbers tied up. Remove layers made last season.

Trees and Shrubs.—Continue to plant if the work is not finished, and protect by tying to stakes.

Tropaeolums.—Dwarfs and climbers may be sown.

Tuberose.—Set the bulbs as directed on page 147.

Verbenas.—Plant in masses. If any have run up to flower, cut them back severely before planting.

Weeds.—If there are any in the borders the garden is too large. Not a weed should be seen.

Green and Hot-Houses.

The time for bringing out the plants must be governed by the forwardness of the season. Roses and other half hardy plants intended for the borders are the first to be removed. Those which are to remain in their pots should be under the shelter of a fence or evergreen screen, to keep them from injury by winds. Camellias are best placed under a frame of lattice work, which will give them a partial shade. The hot-house will need but little fire heat, and both this and the green-house require abundant ventilation. As soon as a house is cleared of plants, repairs and cleansing may be done.

Cactuses.—Make cuttings and allow them to dry for a few weeks before putting them into the soil.

Camellias.—Syringe freely while growing, and when put out of doors, shelter as noticed above.

Cuttings.—Preparations may be made for increasing the stock. Keep them in a close atmosphere and in partial shade until rooted.

Fuchsias.—The hardy sorts are to be set in the borders. No plant is better to ornament the veranda or balcony than this in pots. Make cuttings of the new wood just as it gets firm.

Insects.—These will allow no relaxation of vigilance. Fumigate and use the syringe freely.

Japan Lilies.—Those in pots should have their flower-stems tied up as soon as they need it.

Oranges and Lemons.—Take out of doors.

Clear the stems of scale.

Pelargoniums.—Put in cuttings for plants for winter.

Water.—The plants remaining in the house must not be neglected. Apply water at evening.

Cold Graftery.

The vines may be forced or retarded, according to the season and climate. Where late frosts occur, keep the house cool, as it is not desirable to start the growth until it can be pushed without interruption. Keep the air moist by syringing over the vines every mild evening, and sprinkling the floor every morning. The manure placed on the outside borders last fall is to be forked in or, if it was neglected, fork over the bed and give a dressing of manure. When danger of frosts is over, the temperature of the house may be gradually increased until it reaches 85° at mid-day, opening only the upper ventilators. When the shoots have sufficiently advanced to show their character, select the best for fruiting and for next year's wood, rubbing out all the others. The shoots are very tender and great care must be exercised in handling the vine.

Apiary in May.

Prepared by M. Quinby—By Request.

The secretion of honey by flowers is much more abundant at some times than at others, owing, probably, to some peculiar state of the atmosphere. When fruit blossoms yield a rich harvest, bees that are in *extra condition*—will not unfrequently swarm about the time these are gone, and the general swarming will begin at the commencement of clover blossoms, the Italians taking the lead. If fruit blossoms secrete no honey, or but little, there will be few swarms until clover has been out some weeks. During *pleasant* weather there is little danger of any starving in this month, but every day of cold or wet weather all light colonies should be fed....The moth-worm may be found in the morning on the floor of the hive, until it is about full of bees....It has been ascertained that the young queen will sometimes meet a drone that belongs to a hive three miles away. When Italians cannot be isolated at that distance, to secure their purity it is better to change the whole stock in the yard the first season, and when practicable, get all bee-keeping neighbors to do the same. It is essential to provide a predominant number of drones. Nature has providentially assisted us; the peculiar structure of the queen-bee making the drone of an Italian queen pure, while her workers may be hybrids. Begin with a queen absolutely pure. Rear the young queens, and pay no regard to what drones they meet; introduce one to each hive—the more the better. All the drones from these being right, the work is half accomplished. The next season rear another set of queens for each hive, from the original pure one, and there being none other but pure drones in the yard, the chances for entire purity are greatly multiplied. The only danger of mixing is from neighbors, and if any colony produces hybrids at any time, the queen should be removed and another substituted....Queens are usually reared in small boxes or miniature hives, by shutting up a few workers and giving them food, etc. The details have already been given in the *Agriculturist*. With several good queens to begin with, each colony can be made to raise its own queen. The first operation is to take out the comb and find and remove the native queen. In one week look over the combs and cut out all queen cells that have been made; then immediately introduce a queen. After she has been there a few days and filled the cells with eggs, she may be transferred to another hive that has been made ready by the same process. After she is removed from each colony the bees convert some of her brood into queens. If you care to take the trouble, you can carefully cut out the supernumerary queen cells, and introduce them instead of a queen into some of the hives. This transferring the queen from one hive to another is attended with a little more risk than when she is left quietly in her own home. Some colonies will transgress all general rules. It would be prudent to have one or two extra queens for this method, as an accident might stop all proceedings at the most important season. A queen can be introduced with but little trouble by warming some honey in a large spoon and smearing her thoroughly, then dropping her into the midst of the bees, from the top. They immediately commence to lick up the honey, and forget to sting her. The general swarming time is the best time to introduce them to the box hive, and I will wait till next month to give the details.

Dwarf Broom Corn.—“D. R.,” Orange Co., N. Y., thus gives his experience, for the benefit of the readers of the *Agriculturist*: “I raise annually enough to make 50 to 100 brooms. A few years ago I got a package of Dwarf Broom Corn seed, and since then I have raised both kinds, but think more of the dwarf every year. I do not intend to raise the tall kind any more, for the dwarf makes much the best brooms. The brush is about three inches longer on an average; is much firmer; there are no crooked heads, and it yields more on the ground. It does best to pull off the suckers just before it heads out. If left on they will grow a foot or more higher than the main stalk; their heads are poor, and they detract from and injure the main brush.”

Books for Farmers and Others.

[Any of the following books can be obtained at the Office of the <i>Agriculturist</i> at the prices named, or they will be forwarded by mail, <i>post-paid</i> , on receipt of the price. All of these books may be procured in making up a library. We indicate our opinion of their value by one or more Stars.]
American Bird Fancier.....\$0 25
American Farmer's Encyclopedia.....\$0 00
American Weeds and Useful Plants.....**
Allen on the Culture of the Grape.....1 00
Allen's (R. L.) American Farm Book.....1 00
Allen's Diseases of Domestic Animals.....75
Allen's (L. F.) Rural Architecture.....1 25
Barry's Fruit Garden.....**
Bement's Poultryman's Companion.....**
Bridgeman's Fruit Cultivator's Manual.....60
Bridgeman's Young Gardener's Assistant.....1 50
Bridgeman's Young Garden Instructor.....60
Bridgeman's Florist's Guide.....50
Breck's Book of Flowers.....1 25
Brown's American Poultry Yard.....1 25
Bulst's American Flower Garden Directory.....1 25
Bulst's Family Kitchen Gardener.....75
Burr's Vegetables of America.....4 50
Chorlton's Grape-Grower's Guide.....75
Cole's (S. W.) American Fruit Book.....75
Cole's Veterinarian.....75
Dadd's (Geo. H.) Modern Horse Doctor.....1 25
Davis's (A. L.) American Cattle Doctor.....25
Dunn's Muck Manual for Farmers.....25
Downing's Cottage Residences.....**
Downing's Fruits and Fruit Trees of America.....2 00
Eastwood on the Cranberry.....50
Employment of Women—By Virginia Penny.....1 50
Every Lady her own Flower Gardener.....25
Fessenden's American Kitchen Gardener.....25
French's Farm Drainage.....*
Field's (Thomas W.) Peat Culture.....1 25
Flint (Charles L.) on Grasses.....**
Flint's Milk Cows and Dairy Farming.....**
Fowler's Hawthorn Cultivator.....*
Fowler's Grape Cultivator.....***
Goodale's Principles of Breeding.....**
Gray's Manual of Botany and Lessons in one Vol.***
Gray's How Plants Grow.....1 00
Guenon on Milk Cows.....60
Hall's (Miss) American Cookery.....1 25
Haraszthy Grape Culture &c.....5 00
Harris' Insects Injurious to Vegetation, plain,.....**
do. do. do. do. colored plates, **
Herbert's Hints to Horsekeepers.....**
Johnson on Manures.....1 00
Kemp's Landscape Gardening.....2 00
Leigh's Honey Bee.....**
London's (Downing's) Ladies' Flower Garden.....1 50
Lemacher's How to Build Hot-houses.....1 25
Liebig's Lectures on Chemistry.....50
Linsley's (D. C.) Morgan Horses.....1 25
Mann of Agriculture by G. Emerson and C. L. Flint.....1 00
Mayhew's Illustrated Horse Doctor.....***
Mayhew's Illustrated Horse Management.....**
McMahon's American Gardener.....2 50
Milburn on the Cow and Dairy.....25
Miles on the Horse's foot.....50
Mistakes of Educated Men.....60
Mr. Farmer at Edinboro.....**
National Almanac and Annual Record.....1 50
Newton's Scientific Agriculture.....**
Our Farm of Four Acres. (paper 30c.) bound.....50
Onion Culture.....**
Pardee on Strawberry Culture.....75
Parsons on the Rose.....1 25
Pedder's Farmer's Land Measurer.....1 00
Phantom Bouquet, or Skeleton Leaves.....1 25
Phin's Grape Culture.....1 25
Quinby's Mysteries of Bee-keeping.....1 25
Randall's Sheep Husbandry.....1 25
Rand's Flowers for Parlor and Garden.....**
Rhodes' on the Dog.....50
Richardson on the Hog.....25
Robins' Produce and Ready Reckoner.....60
Shepherd's Own Book, Randall & Youatt.....2 00
Skillful Housewife.....50
Smith's Landscape Gardening.....1 25
Spencer's Education of Children.....**
Stewart's (John) Stable Book.....1 25
Tobacco Culture.....**
Todd's (S. E.) Young Farmer's Manual.....1 25
Tucker's Register Rural Affairs.....1 25
Turner's Cotton Plant's Manual.....1 25
Watson's American Home Garden.....**
Weller's Herbs and Evergreens.....1 25
Yale College Agricultural Lectures.....50
Youatt and Spooner on the Horse.....1 25
Youatt and Martin on Cattle.....1 25
Youatt on the Hog.....75
Youatt on Sheep.....75
Youmans' Chemistry.....1 25
Youmans' Household Science.....***

Commercial Notes.

The following condensed, comprehensive tables, made up to April 15th, show the transactions the past month.

1. TRANSACTIONS AT THE NEW-YORK MARKETS.

RECEIPTS.	Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.
27 days this m th	209,000	156,000	285,000	7,500	126,000	333,000
24 days last m th	201,000	46,000	147,000	6,100	122,000	

SALES.	Flour.	Wheat.	Corn.	Rye.	Barley.
27 days this month	373,000	784,000	836,000	46,500	410,500
24 days last month	432,000	2,501,000	1,154,000	16,500	287,000

2. Comparison with same time last year.

RECEIPTS.	Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.
27 days 1864	209,000	156,000	285,000	7,500	126,000	333,000
26 days 1863	211,000	41,450	127,000	18,750	93,000	296,000

SALES.	Flour.	Wheat.	Corn.	Rye.	Barley.
27 days 1864	373,000	784,000	836,000	46,500	410,500
26 days 1863	321,000	413,000	1,492,000	148,500	105,000

3. Exports from New-York Jan. 1. to April 15.

Flour.	Wheat.	Corn.	Rye.	Oats.
1864.....570,731	3,851,473	74,900	405	12,145
1863.....705,603	3,860,161	2,251,870	127,270	100,707
1862.....906,575	2,980,557	4,170,010	483,974	15,447

The Current Price Table shows the present value of the principal agricultural Products, with variations from last month. The chief activity has resulted from speculation, stimulated by the advance in gold, the rise in

which has carried prices of some articles up materially....Wool was depressed until April 1st, but has since been more active at advancing rates....The future of prices of all products will depend entirely upon the spring campaign. Marked success to our Arms will knock gold down, and carry prices of all commodities with it.

CURRENT WHOLESALE PRICES.

	MARCH 15.	APRIL 15.
FLOUR—Super to Extra State	\$6 20	\$7 25
Super, to Extra Southern	6 00	8 00
Extra Western	6 73	8 11
Extra Genesee	7 15	9 00
Superfine Western	6 30	6 55
RYE FLOUR	5 50	6 30
CORN MEAL	5 28	6 20
WHEAT—All kinds of White	1 75	1 95
do. do. do.	1 74	1 90
COEN—Yellow	1 25	1 27
do. do. do.	1 81	1 95
OATS—Western	9 00	9 00
State	8 90	9 00
RYE	2 71	3 00
BARLEY	1 28	1 55
COTTON—Middlings, per lb.	77	78
HOPS, crop of 1863, per lb.	23	22
FEATHERS, Live Geese, p. lb.	68	65
SEED—Clover, per lb.	18	18 1/2
Timothy, per bushel	3 00	3 25
FLAX, per bushel	3 75	3 55
SUGAR—Brown, per lb.	12 1/2	13 1/2
MUSSELS, New Orleans, p. lb.	68	80
COFFEE, Rich, per lb.	16	17
TABACCO—Kentucky, &c, p. lb.	16	17
Seed Leaf, per lb.	68	63
Wool—Domestic fleece, p. lb.	68	63
DOMESTIC, pulled, per lb.	60	57
Wool, California, unwashed	25	20
TALLOW, per lb.	12 1/2	13
OIL CAKE, per tun.	45 00	53 00
PORK—Meat, per bbl.	22 00	23 75
Prime, per bbl.	15 00	20 50
BEEF—Prime, mess	15 00	16 50
LARD, in bbls., per lb.	18	18 1/2
BAKED, Western, per lb.	25	20
do. do. do.	32	30
CHEESE	15	18
BEANS—per bushel	2 60	2 80
BROTH, Corn—per lb.	8	10
EGGS—Fresh, per dozen	26	27
POULTRY—Fowls, per lb.	15	18
TURKEY, per lb.	17	20
PIGEONS—Wild, per doz.	2 00	2 25
POTATOES—Mercers, p. bbl.	2 25	2 50
Pearl Blow, per bbl.	1 75	2 00
Prince Albert	2 75	3 25
Nov. Stock, per bushel	55	65
TRAVEL—Four bags, per bbl.	1 00	1 25
ONIONS, Red & Yellow, p. bbl.	5 00	6 00
DRIED APPLES, per lb.	7 1/2	11
DRIED PEACHES, per lb.	25	28
DRIED RASPBERRIES, per lb.	24	25
APPLES, Western, per bbl.	2 75	3 00
do. do. do.	2 00	2 50
Apples, Russets, Golden p. bbl	7 00	9 50
CRANBERRIES, per bbl	12 00	18 00

U. S. 10-40 BONDS.

These Bonds are issued under the Act of Congress of March 8th, 1864, which provides that in lieu of so much of the loan authorized by the Act of March 3d, 1863, to which this is supplementary, the Secretary of the Treasury is authorized to borrow from time to time, on the credit of the United States, not exceeding TWO HUNDRED MILLION DOLLARS during the current fiscal year, and to prepare and issue therefore Coupon and Registered Bonds of the United States; and all Bonds issued under this Act shall be EXEMPT FROM TAXATION by or under any State or municipal authority. These Bonds are TO BE REDEEMED IN COIN, at the pleasure of the Government, at any period not less than ten nor more than forty years from their date, and until their redemption FIVE PER CENT. INTEREST WILL BE PAID IN COIN, on Bonds of not over one hundred dollars annually, and on all other Bonds semi-annually.

The interest is payable on the first days of March and September in each year. The semi-annual Coupons are payable at those dates, and the annual Coupons on the 50 and 100-dollar Bonds are payable on the first of March.

Subscribers will receive either Registered or Coupon Bonds, as they may prefer.

Registered Bonds will be issued of the denominations of Fifty Dollars (\$50), One Hundred Dollars (\$100), Five Hundred Dollars (\$500), One Thousand Dollars (\$1,000), Five Thousand Dollars (\$5,000), and Ten Thousand Dollars (\$10,000); and Coupon Bonds of the denominations of Fifty Dollars (\$50), One Hundred Dollars (\$100), Five Hundred Dollars (\$500), and One Thousand Dollars (\$1,000).

Subscribers to this loan will have the option of having their Bonds draw interest from March 1st, by paying the accrued interest in coin—or in United States notes, or the notes of National Banks, adding fifty per

cent. for premium,) or receive them drawing interest from the date of subscription and deposit.

The fact that these Bonds are exempt from municipal or State taxation enhances their value from one to three per cent. per annum, according to the rate of tax levies in various parts of the country.

At the present rate of premium on gold they pay over eight per cent. interest in currency, and are of equal convenience as a permanent or temporary investment.

It is believed that no securities offer so great inducements to lenders as the various descriptions of U. S. Bonds. In all other forms of indebtedness, the faith or ability of private parties or stock companies or separate communities only is pledged for payment, while for the debts of the United States the whole property of the country is held to secure the payment of both principal and interest in coin.

These Bonds may be subscribed for in sums from \$50 up to any magnitude, on the same terms, and are thus made equally available to the smallest lender and the largest capitalist. They can be converted into money at any moment, and the holder will have the benefit of the interest.

The fact that all duties on imports are payable in specie furnishes a fund for like payment of interest on all Government Bonds largely in excess of the wants of the treasury for this purpose.

Upon the receipt of subscriptions a certificate of deposit therefor, in duplicate, will be issued, the original of which will be forwarded by the subscriber to the Secretary of the Treasury, at Washington, with a letter stating the kind (registered or coupon) and the denominations of bonds required.

Upon the receipt of the original certificates at the Treasury Department, the Bonds subscribed for will be transmitted to the subscribers respectively.

Subscriptions will be received by the *Treasurer of the United States* at Washington, and the *Assistant Treasurers* at New York, Boston, and Philadelphia, and by the

FIRST NATIONAL BANK of New York, No. 4 Wall St.
SECOND " " " 23d St. & Broadway.
FOURTH " " " Pine Street.
SIXTH " " " 6th Av. & Broad'w,

First National Bank of Bangor, Me.
First National Bank of Portland, Me.
First National Bank of Boston, Mass.
Second National Bank of Boston, Mass.
First National Bank of New Bedford, Mass.
First National Bank of Springfield, Mass.
First National Bank of Worcester Mass.
First National Bank of Providence, R. I.
First National Bank of Hartford, Conn.
First National Bank of New Haven, Conn.
Second National Bank of New Haven, Conn.
First National Bank of New London, Conn.
First National Bank of Albany, N. Y.
First National Bank of Buffalo, N. Y.
First National Bank of Binghamton, N. Y.
First National Bank of Dansville, N. Y.
First National Bank of Elmira, N. Y.
Second National Bank of Elmira, N. Y.
First National Bank of Lockport, N. Y.
First National Bank of Syracuse, N. Y.
Third National Bank of Syracuse, N. Y.
First National Bank of Newark, N. J.
First National Bank of Carlisle, Pa.
First National Bank of Erie, Pa.
First National Bank of Meadville, Pa.
First National Bank of Philadelphia, Pa.
First National Bank of Scranton, Pa.
First National Bank of York, Pa.
First National Bank of Washington, D. C.
First National Bank of Cincinnati, O.
Second National Bank of Cleveland, O.
First National Bank of Columbus, O.
First National Bank of Hamilton, O.
First National Bank of Portsmouth, O.
First National Bank of Fort Wayne, Ind.
First National Bank of Indianapolis, Ind.
First National Bank of Terre Haute, Ind.
First National Bank of Cairo, Ill.
First National Bank of Chicago, Ill.
Second National Bank of Chicago, Ill.
Third National Bank of Chicago, Ill.
First National Bank of Ann Arbor, Mich.
First National Bank of Janesville, Wis.
First National Bank of Milwaukee, Wis.
First National Bank of Davenport, Iowa.
First National Bank of St. Louis, Mo.
First National Bank of Louisville, Ky.
Second National Bank of Louisville, Ky.
First National Bank of St. Paul, Minn.

and by all National Banks which are depositaries of public money. All respectable Banks and Bankers throughout the country will furnish further information on application, and afford every facility to subscribers.



Containing a great variety of Items, including many good Hints and Suggestions which we give here in small type and condensed form, for want of space elsewhere.

Basket again Overflowing.—The Calendar of Operations, which fills four pages, is so important this seed-time month that we have allowed it to crowd other departments. This, with an error in receiving too many advertisements, crowds out many "Basket Items" in type. They must have room next month.

To Correspondents.—Half a million intelligent, thinking, talking, writing readers have given us more letters than we could possibly answer. Please accept this excuse for delay in responding to several letters.

"Errors Corrected."—In writing up this year's Mail Books, a few errors have been made—a remarkably small number, considering the number of names to be entered, and the frequent indefiniteness of the directions given in the letters containing them, the omission of name, of State, etc. If there is any living man who can pick 100,000 names out of letters, with their Post-Office addresses, as usually written, and with no mistakes, we will employ him at a large salary. We always desire to be informed of any error, and correct it promptly.

The Drawing Instruments here at Last!—A large invoice of the beautiful cases of Drawing Instruments for Premiums, which were ordered from Paris in November, and which should have been here early in January, did not arrive until April 12th. None of our friends entitled to them can have been more annoyed than ourselves, at this extraordinary delay. We have previously purchased, at extra expense, and sent out to fill premiums, all the similar instruments we could find in the city, so that we shall now have a small overplus after filling the premium demands, in and to come in. These surplus sets will be sold to those first calling for them at \$6 50 per set, including pre-paid postage. They are in neat rosewood cases, and the price is less than they could be sold for, if imported at the present price of Exchange. See engraving and description in January *Agriculturist*, page 25.

A Very Mean Imposition.—Every now and then, a subscriber sends us an advertisement or circular that has come folded up in his regular copy of the *American Agriculturist*. Some of these circulars are descriptive of unseemly or vicious books, medicines, instruments, etc., such as no parent would wish to have drop out into his family circle. We never put anything in the shape of a circular or handbill in any paper; and as the papers are put into the mail bags in our own mailing rooms, such additions must usually be made at the Post Office where they are received, by some clerk or other person who is privately acting as agent for the vendors of the reprehensible articles. It is a double imposition, *first* upon the publisher, who is thus made to appear to countenance the swindling; and *second* upon the reader, who is made the unwilling recipient of a thing he would on no account bring into his family. We ask the aid of every one so imposed upon, in ferreting out the guilty parties. Any Postmaster proved to be guilty of such an offence will be instantly dismissed by the Department at Washington, as we are assured.

"Ten-Forties."—We cheerfully give a place in our reading columns to an advertisement of the New **10-40** U. S. Bonds, thus called because they have 40 years to run, but may be paid after 10 years. We know of no better investment than these for small or large sums. The 5-20 six per cent Bonds are already selling at 114 to 115, and few can be had. The 10-40 Bonds are relatively more valuable, because having a longer time to run. In England, a three per cent permanent Government Stock is considered a good investment, though the National debt is still twice our own, and the ability to pay very far less. With our National troubles settled, as we hope and believe they soon will be, all Government Stocks will stand at a high premium. They have pledged for their payment the whole property of the country, and take precedence of all other debts. If the public faith should ever fail, no other security would have any value. The increased confidence in the triumph and stability of our country is already creating a very large foreign demand for our National Bonds, and with the return of peace, this demand will so increase as to call for a large share of our National debt, to be returned only as we demand the privilege of paying it. The longer running 10-40 Bonds will be most sought after abroad. The present prospect is, that the 200 million

Popular Loan will soon be all taken up. This may be followed by a 4-per cent. loan if more funds are needed. People so well understand the security and convenience of stable Government Bonds, the interest payable at regular periods in gold coin, and the interest coupons being everywhere equivalent to gold, that even a 4-per cent Bond would be preferred by many, to 6 or 7 per cent property mortgages. Everything considered, we answer "yes," to a considerable number of readers who have recently asked us if it is advisable for them to subscribe for the 10-40 five per cent loan. The particulars can be learned from the advertisement.

Sales of Well-bred Stock.—There has been considerable activity of late among cattle breeders all over the country, and many Short-horns, Ayrshires, and Jerseys have changed owners at very fair prices. At the Towneley sale of Short-horns at Burnley, Lancashire, England, March 17th, the buyers congratulated themselves on the absence of Americans, and the competition of the "Almighty Dollar." Nevertheless, the average price brought by 46 cows and heifers, and 10 bulls, was £128 7s. 11d., or fully \$640 (gold). One 3-year old cow, Royal Butterly Duchess, was sold to Mr. Bettis, for 500 guineas—over (\$2,500 (gold)), and a heifer coming two years old next August, sold to Mr. Eastwood for £590, which is nearly \$3,000, (over \$3,000 in green-backs.)

"Ten Acres Enough."—A work of 255 pages, published by James Miller, New York. This professes to give the experience of one who moved from the city to a farm of ten acres, and contains an account of what he did, which would be interesting and useful, if we had proof of its reliability. The author withholds his name, and after reading his 23rd chapter, we don't wonder at it, for more out and out specimen of literary robbery we have seldom seen. This chapter is mainly made up, paragraph after paragraph, from an article by Donald G. Mitchell, entitled, "Hints about Farming", and published in the *New Englander* for November, 1860, pp. 889 to 907. Where we find such a thing in one part of the work, we suspect the whole, and this feeling is not at all diminished by finding the advertisement of some New Jersey Land Company, in whose interest it appears to be written, at the end of the book.

Plants for Names.—W. P. T. Pope, Bald Eagle Furnace. The leaves sent are those of the Trailing Arbutus, sometimes called May-flower (*Epigaea repens*), one of our most beautiful prostrate shrubs. It is not usually classed among medicinal plants, but Mr. P. says it has a reputation in diseases of the kidneys. It is difficult to cultivate in the open ground, but one of our associates has it growing finely in a Warden case. I. F. Hackman, Middlesex Co., Conn. The leaf sent is from the *Aucuba Japonica*, the Gold Dust Tree. A very pretty evergreen, but not hardy in the Northern States.

Mailing Boxes for Plants.—About 50 have been received, and others are still arriving. We have not time to write to each contributor of these. Experiments are in progress with them, but it may take some weeks to decide upon the best. Several send letters and boxes separately, without sufficient description to tell which box a letter refers to; as several samples from different sources are very similar.

Dogs.—W. S. B., Whitley Co., Ind. In this country we think a larger, more powerful and pugnacious dog is required by the shepherd than the English and Scotch shepherd dogs, which, however, in point of intelligence, kindness to the sheep, and ease of training are not surpassed. The Spanish, Mexican and South American dogs, if they are well trained, can and will be the death of any thing of the canine tribe that comes near the flock, and are, in fact, so "sharp" that it is often dangerous for a stranger to approach the flocks they guard. They may be trained as drivers to nearly equal the colley. We recommend farmers whose flocks are liable to injury from dogs—and whose are not, to secure some of these sagacious and powerful animals. At all times, however, keep a good rifle, or smooth bore loaded with a heavy charge of buck shot, and if possible kill every dog that passes your farm unaccompanied, and particularly any one that may be found upon your land. Three grains of strichnine is fully equal in its effects to an ounce of lead in the brain or heart, and often more easily and less noisily administered.

Beware of Gold Mines.—Just now there is a great rage for investing in the gold and silver mining companies. Scores of these companies are being formed in Eastern cities, each one of which holds forth (on paper) the most wonderful prospects. The fact that a very few mining companies have been lucky in striking upon a valuable vein, is held up as an example of what others are likely to realize. A San Francisco paper gives

a list of 95 companies, organized in California, by *persons on the spot*, of which the stock of only 5 (1 in every 19!) is worth par, or what it originally cost the subscribers. What can those at a distance expect then, those who have only hearsay, or the statements of interested, perhaps visionary, or over-sanguine parties to guide them. The truth is, a man has a better chance of winning a prize in a lottery. As with the gold diggers, so with the Eastern formed mining companies, where one will chance to be successful, forty nine will lose their money invested. We have aimed several paragraphs at some of these companies. The men engaged in one of them, took our remarks as aimed specifically at themselves, and called upon us with documents to show their legitimate organization (though it was not so until after our first paragraph was published on the subject), and to show their personal responsibility, all of which we admit. But we failed to be convinced of the positive good prospects of the company. One of the parties is alone able to take all the stock required, and if he had full faith in all that he holds out to others, he would not invite them to give \$2½ to \$5 for shares that according to the statements put forth will so speedily become worth as many thousands.

A Fine Azalea.—There is no better spring blooming plant for the green-house or conservatory than *Azalea Indica* in its different varieties. It stands a deal of hard usage and seldom fails to cover itself with flowers. John Hutchison, gardener to F. A. Lane, Esq., placed upon our table the finest specimen we have seen in many a day. It was the variety called *Iveriana*, and was so full of flowers that scarcely a leaf could be seen. Indeed it was a beautiful specimen.

The Plural of Cactus.—Ellie C. Jarvis, Boone Co., Mo. If cactus is used as a Latin word, the plural is *cacti*, when it is employed as an English word, we prefer to make the plural in the usual way, *cactuses*.

Catalogues, etc., Received.—H. B. Lum, Sandusky, O., Flower Seeds: E. Williams, Mont Clair, N. J., Small Fruits: Buist's Almanac and Garden Manual, Phila.: Alfred Bridgeman, New-York, Flower and Vegetable Seeds: Spring Catalogue of New Plants, Peter Henderson, Jersey City, N. J.: Knox Fruit Farm and Nurseries, J. Knox, Pittsburgh, Pa.: Proceedings of the Missouri State Horticultural Society, 4th Annual Meeting: An Essay on the Culture of the Grape in the Great West, by Geo. Husmann, Hermann, Mo.: J. M. Thorburn & Co., New-York, Flower Seeds: Husmann & Manwaring, Hermann, Mo., Fruit and Ornamental Trees: Transactions of the Mass. Horticultural Society for 1863: Descriptive Catalogue of choice Annual and Biennial Flower Seeds—Mark D. Wilson, Rochester, N. Y.... Dreer's Garden Calendar for 1864, containing directions for cultivation and a list of Seeds and Plants, Henry H. Dreer, Phila.: Fifth Annual Report of the Secretary of the Iowa State Ag'l. College, 1864...Transactions of the R. I. Society for the Encouragement of Domestic Industry for 1863: Phoenix's Bloomington (Ill.) Nursery List: Supplement to Hovey & Co's Catalogue of Seeds.

Herbarium for Hamilton College.—Prof. E. North writes that Hamilton White, Esq., of Syracuse, has purchased and presented to Hamilton College the herbarium of Dr. H. P. Sartwell, of Penn Yan, N. Y. The collection contains about eight thousand specimens of plants. From our acquaintance with Dr. S., as a careful botanist, and a maker of most excellent specimens, we congratulate the college upon the possession of so valuable a collection.

Good Returns for One Dollar.—Mr. Wm. Havenbull, of Kendall Co., Ill., received one year ago four *Triomph de Gaud* strawberry plants as his premium with the *Agriculturist*. Last autumn he sold four hundred plants at one dollar a hundred, and had four hundred more left to plant a bed for his own use.

Seeding to Grass—Information Wanted.—The practice of good farmers in different parts of the country varies more in regard to sowing grass for permanent mowings, or for "stocking down" for a number of years, than in regard to almost anything else. Common practice in any one section is not a safe guide for other parts of the country; neither is it always best or expedient for the district where it is most used. We shall be very glad to hear from many of the readers of the *American Agriculturist* on this subject, and will arrange for the benefit of all, the facts thus gathered. Please state—1st. Kind of soil and if good grasses would grow without seeding. 2d. The time of year you prefer to sow grass seed. 3d. The kind of grass sown and the quantities of each. 4th. How long each kind is likely to last, before giving way to other sorts more natural to the soil or propagating themselves more readily.

Prairie Breaking in Southern Ill.

—W. F. M., Washington Co., Ill., writes: "We break prairie as early as we can, breaking rough that the harrow may tear the sod well to pieces; let it lie until after oats are sowed, then harrow until pretty fine, and sow flax. By fall it is in splendid order for sowing wheat. We always make more money from flax and wheat for the two first crops than any other kinds of crops we can plant."

What Grass Seed to Sow for Pasture?

The soil is full of grass seeds—some are the very best that can be on the soil, others less valuable. Where a pasture is made, farmers often sow timothy, red and white clover, with a portion of red-top, and perhaps some hay-seed from the hay floor. This does well, but we are asked to name some grasses for permanent pasture—the seed of which can be obtained. We give, therefore the following from our own experience and the testimony of others, as a good mixture: Meadow Foxtail 5 pounds, Orchard grass 5, Meadow Fescue 3, Ky. Blue (June) grass 3, Perennial Rye grass 6, Wood meadow 3, Rough Stalked meadow 3, Sweet Scented Vernal 3, White Clover 6, and Red Clover 3;—in all 40 pounds.

Lucerne or Luzern.—G. Bost, Hennebien Co., Minn. Worcester, Webster and Gray say Lucerne, and it has been spelled that way intentionally. Indeed in the last *Agriculturist* it was accidentally spelled with a *z*, which was unnoticed until the page was stereotyped and we went to the expense of having the plate altered in order to conform to good usage. In adopting words from another language into ours, neither the spelling nor pronunciation are of necessity preserved. In this case *Luzern* is German and *Lucerne* is French.

Marl.—S. Howard, Jr., Alleghany Co., Mich. The substance called marl in your State is bog lime stone, a concretion of shells and fragments of shells, with some vegetable and earthy substances intermixed. Some marls are very beneficial applied raw—that is, after being exposed to the air and broken down to a crumbly mass. They are used as top-dressings upon grain or grass in the spring, or upon grass after mowing, or in the autumn, and are also spread and plowed in. If the marl is rich enough in lime to make it worth while to burn it for ordinary use, this lime of course would be valuable as a manure, and it is not improbable that your marl would be best used in this form, as quick lime, or slackened lime. A peck of lime to the rod of garden is a fair dressing—and we know of no limit to the quantity of shell marl which might be used without injury. (Lime in either form makes peas boil hard.)

A Corn Crop that Paid.—A subscriber to the *American Agriculturist*, in Ottawa, Ill., sends the following account of a corn crop, the second one from new prairie land: *Paid out* for rent of 45 acres, \$135; for help in planting, \$3; paid for husking, \$47; total, expense out, \$185. *Received* 52½ bushels per acre, or 2362½ bushels of corn, which sold for 80 cents per bushel, or \$189. Deducting \$185 leaves \$1705, for seed and his own 99½ days work, viz: breaking old stalks, 2½ days; plowing, 21½ days; harrowing, 4 days; marking, 2½ days; planting, 3 days; harrowing after planting, 5½ days; plowing out three times with a two-horse plow, 23½ days; husking, 18 days; and hauling off, 19 days. No manure used. Expense of team not stated. This was far above the average yield last year in Illinois, as the ground was very high, and the corn not injured by frost. The result would also have been very different in ordinary years, with corn at 15c. to 25c. per bushel.

Applying Gypsum to Corn.—M. J. M. It may be applied in the hill at planting at the rate of a tablespoonful to a handful, or with perhaps better effect at the same rate cast upon the hill at the first hoeing, so that it will be somewhat mingled with the soil.

Corn and Cob Meal.—We have no faith in the cob part for any thing. There is pretty good evidence that the hard, indigestible plates of the cob are often hurtful. The cobs of well ripened corn are no more nutritious than white oak sawdust; those of soft corn and nubbins are in part digestible and perhaps somewhat nutritious, but not worth so much, in our opinion, as an equal weight of wheat straw.

Hungarian Grass, or Millet.—These plants are of the same species (*Setaria Italica*), differing from each other as different kinds of maize vary. The Hungarian grass grows much shorter, has a purplish green head, very bristly like the foxtail or bottle grass. Both are excellent fodder crops. The Hungarian is best sowed June 1st to 25th, produces a hay much like rank Timothy, but sweet and much liked by cattle. It should be cut in blossom. The millet, sown at the

same time, is coarser, but if cut while the grain is in the blossom or in milk makes good hay also. On the whole we give preference to the Hungarian. Another kind of millet (*Panicum Miliaceum*) was formerly a good deal cultivated, but we have seen little of it of late. The two are often confounded. It is also a good fodder crop, and is treated in the same way. Hungarian grass is said to prove occasionally fatal to horses; and this is attributed to the bristly envelop which surrounds the fully ripened seed of either kind.

Beardless Barley.—M. W. Hall, Fond du Lac Co., Wis., asks, "What is it good for? and does it pay to raise it? Testimony that has come to our knowledge is conflicting. What is the experience of the readers of the *American Agriculturist*?

Pleuritic Pneumonia.—Dawson Hunt, an Irish farmer of intelligence and experience, who visited this country preparatory to bringing out his family to remain, called at the office of the *Agriculturist* and gave his experience with this direful malady. Our often expressed views were fully confirmed, in regard to its contagiousness and fatality under ordinary circumstances, but he says he has for some years used the following recipe as a preventive to this disease: Whenever a new animal has been brought into the herd, he gave it to the new comer, and to all the rest. Tartar emetic 40 grains, nitre 40 grains, digitalis powder 10 grains—mix; give in a bottle of cold water after fasting. He gives the full dose to an animal 3 years old, ½ to a 2 year-old beast, and ¼ to a yearling. The disease is working great damage in Great Britain, but since using his prescription he has had scarcely any fatal cases.—It is worth trying here.

Profitable Cows.—J. Tilman, Lehigh Co., Pa., sends to the *American Agriculturist* the following account of three cows, for the year 1863: 600 lbs. butter sold at 20 cts. per lb., and two splendid calves worth \$18 each, making a total of \$156, or \$52 for each cow. They were fed with 2 quarts each of wheat bran mixed with cut corn fodder in January, February, March, April, and December, and turned out to pasture the rest of the year.

Sheep kept on Wheat Straw.—A friend informs the *Agriculturist* that he kept 40 sheep, wethers and ewes, 2 years old or over, not breeding, from the time they were taken up until April, on wheat straw and half a pound of corn per day. They held their own perfectly. At one time ½ of a pound of corn was fed, and it produced indigestion, or at least, some of the sheep got "off their feed." The straw was cut down from the stack once each day and spread upon the snow. It would have gone much further if it had been fed three times a day in racks.

Sheep—Salt for Stretches.—From the same source comes the following communication: "I have found common salt an effectual preventive and also cure for stretches, alias constipation, in sheep. My sheep have no stretches while their salt trough is supplied; if not furnished for a few days I am sure to see symptoms of the disease, which a fresh supply of salt immediately removes."

Time to Shear Sheep—Scab.—W. H. R., Rockville. Shearing is best delayed until the weather is warm, about the first or middle of June, especially if the sheep are washed before shearing—a practice which we deprecate as injurious to the sheep, a disagreeable labor, and of no real benefit to the manufacturer. The scab is highly contagious, and caused by a minute insect termed *Acarus*. It is cured by dipping the sheep in pretty strong tobacco water, or by an application of unguentum. The dipping is best done after shearing. The lambs not being dipped, all the ticks take refuge on them, and when they are dipped some weeks after, both the scale and the ticks are killed at once. Your other questions you will find answered in past and present numbers of the *Agriculturist*, or in any good sheep book.

Cure for Foot Rot in Sheep.—J. W. Rhodes, Cayuga Co., N. Y., writes to the *American Agriculturist*: "I have a sure and immediate remedy for foot rot, viz: Cleanse the foot thoroughly, pare the hoof fearlessly until you reach the bottom of every little crevice, and then thoroughly apply liquid chloride of antimony daubed on with a swab so as to touch the whole cleft and all adjacent parts." Mr. Rhodes applies this at any time during the winter or after the ground freezes—the disease at this time of the year not being contagious. The contagion is arrested by severe frosts. This substance he considers much more conveniently applied and more economical than the hot blue vitriol solution.

Litter for Breeding Sows.—The experience of Dr. Hexamer, of Westchester County, N. Y., is greatly in favor of saw-dust above any other material,

as litter for pigs and sows, particularly for those with very young litters. They will keep their nests entirely clean and dry for a long time. The little pigs can not hide themselves in it as they will in straw, and thus the danger of the sow lying on and killing them is removed, a casualty that happens very often, particularly with heedless sows, which are often the best breeders. Tan bark would probably be equally good if put in dry

A Plan for a Piggery.—There was an excellent plan published in the last Vol. of the *Agriculturist*, page 297, but being too expensive for some of our readers, another is called for. Where manure making is an important part of farm business, and hogs are kept in close pens, the plan referred to is none too expensive. There are three things necessary or desirable in a hog pen: 1st. A place for throwing vegetable matter, weeds, muck, etc., for making manure. 2d. A warm, dry, well-ventilated nest-place. 3d. A feeding place, easily cleaned out, and so arranged that pigs cannot be too "hoggish," and get an undue share of feed. Besides these, a convenient covered place for cooking feed, and a place for storing litter, muck, etc., in winter, and roots and feed at all seasons are highly desirable. It is poor economy not to have buildings of this sort convenient.

Gapes in Chickens—A Timely Hint.

—"Coxsackie" writes to the *Agriculturist*: "Tried all sorts of 'cures,' without success, and almost determined to abandon raising chickens, on account of the great losses from this cause. I have learned that 'An ounce of prevention is worth a pound of cure,' and believe the only sure way to cure gapes, is not to have it. About three years ago I asked a neighbor if he had much trouble with gapes; he replied none whatever, and gave as a reason that he had the meal *cooked* for young chickens, and was careful not to give them much for several days after they were hatched. I have since followed his example and have not been troubled with gapes."

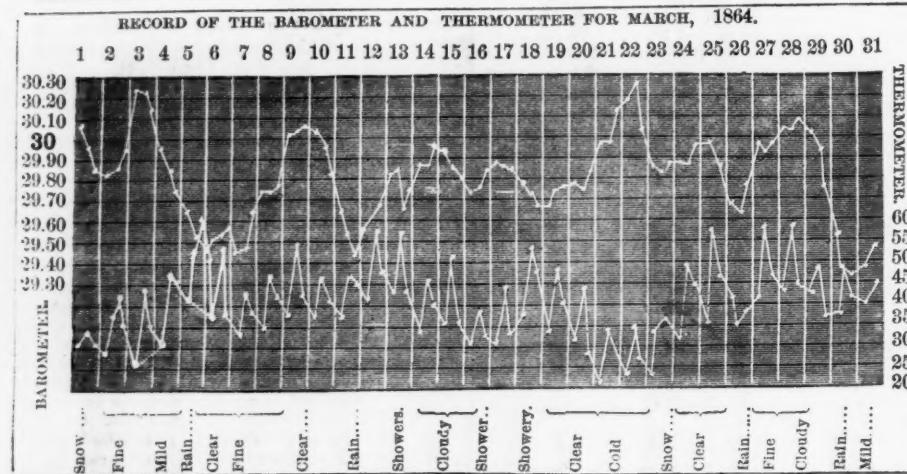
Fowl Houses in Barns.—A correspondent writes as follows (approving of the Pa. Double Decked Barn in general): "A fowl house in a barn will be likely to make the whole concern a foul house. It is next to the hospital too, and if the fowls, roosts, etc., should get lousy, and the lice emigrate to the hospital, the poor sick animals would have a sorry time."

Cure for Gapes.—Alfred D. Sharples, Centre Co., Pa., communicates to the *American Agriculturist* the following directions: "Take a 3-inch piece of snood (the 'silk-worm gut' used for attaching fish hooks to the large line, sometimes called 'snell gut') double it and fasten by fine silk to a handle 8 inches long, leaving one inch loop. The instrument being ready for use, place the chick's legs between your knees, then with finger and thumb of left hand, one in each corner of the biped's mouth, and stretching the neck upward that you may see the opening in the front of the gullet, insert the instrument as far as it will pass readily, and turning it with the fingers withdraw it, when you will find the worms in the lower part of the loop—provided the chick had the gapes. The handle should be of smooth whalebone or hickory, about a sixteenth of an inch in diameter.

How to keep Eggs.—(1) Pack the fresh eggs in a barrel and cover them with clear lime-water made by slaking lime to a milk with hot water, then pouring it in excess into a vessel of water, stirring up, covering and letting it stand until clear. (2) Grease the eggs with good lard so as to exclude the air perfectly; pack in boxes setting them on their ends so that the boxes may be turned over without breaking the eggs. Once in about two weeks turn the boxes over. This prevents the yolks coming in contact with the shell, and becoming spoiled. (3) The same mode of procedure may be followed without greasing the eggs, with good success, and (4) the greasing alone has its good effect.

To Commute Bones.—Whole bones may be easily and cheaply obtained in all parts of the country, but it is troublesome and expensive to grind them or reduce them in any way to a desirable state of comminution. Try this plan and report: "A heap of bones, broken up somewhat, laid up with a little sawdust, and moistened with chamber ley or the strong leachings of a manure heap, will ferment, and the bones will decompose so that they may be crushed and crumbled."

Bean for a Name.—"A. M. P." Delhi, N. Y. The beans appear to be identical with the Wax Bean of the seed-stores. Also called Indian Chief, Butter Bean and Algerian. It is a pole bean, a profuse bearer, and valued as one of the richest snap beans. It is not as early as some of the bush varieties, but is much richer, and the pods can be cooked until the bean is large enough to shell. The seeds when ripe are black with white scar.



NOTES.—Rain and melted snow as follows: Snow 1st, 2d, and 23d, 0.58 inches; Rain, 5th, 10th, 11th, 26th, 30th, and 31st, 1.57 inches.—Showers on 13th and 15th.—Snow fell lightly on the 16th and 16th.—A southeast gale prevailed on the 18th, and northeast gales on the 26th and 30th.—Temperature uniform for the season: maximum, 58.0; minimum, 22.2.—The fluctuations of the barometer were between 30.230, maximum, and 29.349, minimum. March 31, 1864.

O. W. MORRIS,

Grape Notes and Queries.—E. W. Knight speaks of two kinds of Clinton. The true has no foxiness at all. The question as to the originator of this vine is still undecided....Underhill's Seedling.—"W.", Oyster Bay, N. Y. This is the same as the grape which has been called the "Celestial," and though the name has been changed, its quality has not. It is sold at a high price and is no better than, if as good as, the Northern Muscadine and other fox grapes....R. O. Beers, Fairfield Co., Conn., gives his experience with grafting the grape. He waits until the vines are in leaf, and then takes roots "as large as knife handles or smaller," and inserts a cion of two eyes by cleft grafting, without waxing, and plants the grafted roots. Of course the cions were kept dormant. Mr. B. succeeded with 30 out of 34 by this method....A. Harris, Appenoose Co., Iowa. There is not enough known of the Concord to say whether it will succeed as a wine grape with you. Its reputation in this respect would seem to be established in the Southwest, but we have no testimony as to its success as a wine producer in the North and East. Climate has much to do with the amount of sugar in any variety,

Waste Corners should be cleared up and occupied this season with some growing crop. All kinds of farm and garden produce not wanted in the family will doubtless sell well at high prices for a year to come, and no spot should remain idle. If not planted at the usual time with ordinary crops, put in turnips or carrots a little later, or plant corn or peas for a succession.

Osage Orange Fences—Bending the tops down.—Frank French, Winnebago Co., Ill., sends to the *American Agriculturist* his method of treating hedges, as follows: "I turned down the tops of a piece of hedge, took some little crochets and pegged them down, and buried them about 8 inches deep, in the fall of 1862. I never saw any shoots grow faster, and this spring I intend to bury the tops of a long piece more, which I neglected to do last fall. I presume I shall get my fingers scratched, but I shall have tight, quick-growing fence." The tightness of a fence made in this way we can testify to. It is absolutely dog-tight, and rabbit-tight too, we should think.

Works on Fruits.—M. M. Buckley, Stamford, C. W. The revised edition of Downing's Fruits brings the work up to 1857. For all varieties introduced since then it will be necessary to refer to the current periodicals and the Reports of the Am. Pomological Society.

Cole-Slaw.—"J. L. F." Chester Co., Pa. This name of sliced cabbage, is correctly spelled as above. Cole is a general name for the Brassica or cabbage tribe; Slaw is from the Dutch *Slaa*, signifying sliced.

Sorghum Culture.—The requisites to success in the cultivation of the sugar sorghum are good seed, a soil not too rich in vegetable or animal matter, but loose and deep, and of fair strength, and good culture. The seed ought to be soaked before planting, and covered very lightly. Planting in drills, 3/4 feet apart, is now preferred, and at the first hoeing the plants

are thinned to 8 or 10 inches apart; subsequently every other one is cut out, which will leave them standing in the rows 16 to 20 inches apart. The suckers are allowed to grow when in drills; but, if the sorghum be planted in hills, it is best to leave 5 plants to a hill and remove all the suckers. The remaining culture is like Indian corn until the cane is ready to harvest. The importance of this crop to the country is beginning to be appreciated. The Great West is fast coming to provide its own sweets, and between honey, maple sugar and sorghum syrup the demands upon the eastern markets are very greatly reduced. The quantity produced has been vastly overestimated, but still it is very great. Combinations of neighboring farmers ought to be formed to buy one of the largest and best evaporators, and setting it up in a conveniently central place, have it ready to convert their cane-juice into syrup well and rapidly in autumn.

Planting Beans too Deep.—J. B., Oberlin, O. Two inches is far too deep to cover the large sorts of beans. Limas for instance, have to push up a large head, and if the ground is heavy it is impossible for them to force through. A covering of half an inch is sufficient. Limas should be stuck in, eye down, simply covering them a little more than out of sight. A successful gardener of our acquaintance plants his Limas in a warm sand bed, sticking them in thickly, but does not cover them out of sight even. The bed is watered if dry, and when the roots have grown an inch or two, they are transplanted to permanent positions.

Striped Squash Beetle.—"Coxackie" writes to the *American Agriculturist* concerning this pest: "Last year I escaped wholly. I started melons and cucumbers in the ground, protected against the cold by small boxes four to five inches high, each covered with a pane of glass, and my watermelons were protected by old sash frames about two feet square and four inches high, with sashes. Not a striped bug did I see on the whole lot, even after the glasses were taken off. Finding my young squash plants attacked by multitudes of bugs, I put square open frames about them, and not a bug troubled them afterward. From careful observations during last spring and early summer, I am satisfied the striped bug will not fly over an obstacle 4 inches high, and this cheap contrivance perfectly protects the plants."

Should Cabbages be Transplanted?—H. Eaton, asks if cabbages do best grown from seed in the hills or transplanted. Some good cultivators plant the seed in the hills. We tried it but once and found it twice as much trouble, and not producing near as good cabbages as a lot transplanted on the same ground. Hog manure said to produce club-foot; sea-weed and stable manure good. Winter cabbages are sown in hills in June.

Sundry Humbugs.—A large batch of material received from subscribers, was placed in the hands of the City Detective Police several days since, but the constant attention required at the great Fair, has prevented their doing much in this line, as yet....Better save postage on circulars from pretended agents in New-York and elsewhere, for the *Covington, Ky., lotteries*, all of which are humbugs. You will get no return for the money sent them, no matter how great their promises. We tried to find a few of them, but they have no location except a post-office box. The "Bankers," so advertising, have only one receiving teller—no paying teller....Will the Mayor of Chicago, Ill., please look after the filthy swindler, who advertises by private circulars from P. O. Box 6529, in that city?....We don't keep a "collecting agency," friend Taber, and therefore can't collect that \$200 prize you have drawn, even for the

"99 per cent." you offer...."Q. A. Johnston, corner of Elm and Mill-streets, Plaistow, N. H.", (an elm tree by the side of a mill dam?) has told hundreds of others the same story. If he will call in we will sell him a dozen of his \$200 prize tickets, for 5 cents—their value as paper rags. How large a city is Plaistow, Mr. Johnston?....The "Railroad Laborers" and others who have sent 25 cents to "Wood, Hoyt & Co." N. Y. City, have got all they will ever get—two shillings' worth of experience—cheaply bought, unless they are foolish enough to send the extra dollar asked. Nobody but the Postmaster can find any such firm here....For exposure of "Freeman's Journal of Science and Medicine," see last December's *Agriculturist*, Cheap Sewing-Machine "Agencies," hailing from Maine, are especially to be avoided. The falsehoods told about them \$10 machines (\$4 to agents, after they pay \$10 for the first one, whether they get it or not), are very plausible and easily put on paper, which being very thin don't cost much, even now. Those who get one of these machines for the \$10 sent (few do), will be able to pay a small portion of the freight expenses by selling the thing for old iron....A new *Employment Dodge*: A fellow in New-Jersey writes to every one advertising for a situation that if they will send him 50 cents, he will secure one at \$85 a month. Ask him to get the place and promise him a \$5 bill when he gets it for you.A subscriber says an "agent" for "Kelly's Pump" collected \$5 each from a number of persons for town rights, but nothing comes in return....What a kind man is D. B. Wallace, Box 2948, Philadelphia, to offer to send a lot of jewelry, etc., worth \$15 each, for only \$1 each, and throw in a \$25 silver watch for each \$15, and a \$60 gold watch for each \$40 sent to him. Whew! Forty \$15 articles (\$600), and a \$60 watch, making \$660 all for \$40!!! A big offer if they were ever filled.

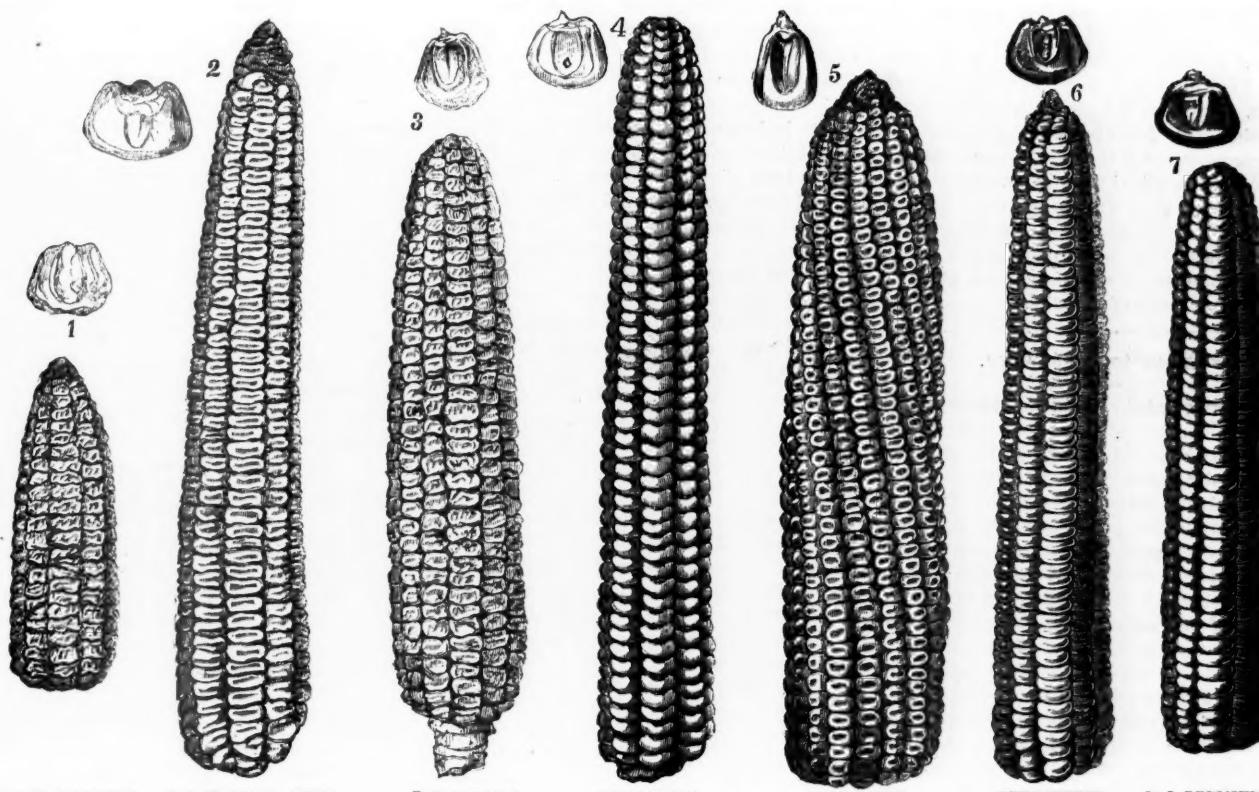
Prices of Books are advancing somewhat, though not in proportion to the increased cost of paper, etc. It will be noticed in the list on page 133, that only a few differ from last month's rates. We can only promise present prices to continue for the month.

The Agriculturist Sanitary Fund.—The multitude of letters received in reference to this, show a great interest everywhere in the enterprise, while they tell of a local effort put forth in almost every town and neighborhood throughout the country, which we had not fully appreciated, or we should not have proposed the plan at all. It will, however, serve the original design of giving a medium for contributions from all who can spare a dime or dollar more to aid the soldiers. When the contributions are mainly in, we shall acknowledge them with the contributors' names.

The N. Y. Live Stock Markets.—*Cattle* are still in light supply, averaging 4,150 per week. Prices unprecedently high—the best, fat, heavy beves selling at 17 cents per lb. estimated dressed weight, and down to 13c. for the poorest....*Cows* scarce and high, owing to advance of dairy products; good, fresh milkers, \$50 to \$60 each....*Veal Calves* abundant, especially of young, poor animals; prices range 5c. to 9c. per lb. live weight, according to quality....*Sheep* are selling quickly at prices ranging from 8c. to 10 1/4c. per lb. live weight. Peits average \$4 and more....*Live Hogs* sell quickly at 8 1/2c. @ 9 1/2c. per lb. live weight, for corn-fed.

Any Number of the Agriculturist Wanted.—From January, 1857, to the present time, can be had for 10 cents. We have stereotyped plates of the last seven volumes, and print back numbers as needed. Complete volumes (from 16 to 22) are sent post paid for \$1.24 each, if unbound; or \$2.00 each if sent bound. (At the office, or by express, unpaid, \$1 and \$1.50 each.)

Condensed Items.—Two MONSTER OXEN, donated from Livingston and Tompkins Counties, N. Y., are worth seeing at the Great Metropolitan Fair. More about them hereafter.....The **Great Hog**, "Benham's Challenge" can be seen for several weeks at least at the *Agriculturist* Office.....DALTON'S KNITTING MACHINE, a simple and effective implement, is on exhibition here also.....The **Gas Making Machine** advertised on page 163, appears to be worth looking into. A friend, in whom we have confidence, who has used one two months, says it is all that is claimed for it.....No one will omit to read the advertisement of the **RAIL ROAD LANDS IN ILLINOIS**, a State that bids fair to soon outstrip all her sisters in agricultural wealth, and all but one in population.....The "AGRICULTURIST STRAWBERRY," will begin to be distributed in August; we have never promised it earlier, though we could have sent it out this spring, but for the unprecedented drought last autumn.....The **METROPOLITAN SANITARY FAIR** is doing splendidly; it is worth going a thousand miles to see it. The receipts now (April 15) are nearly up to the promised million dollars, while the display of articles seems as large as ever, and the attendance is undiminished.



NARRAGANSETT. N. J. WHITE ½ DENT.

R. I. ASYLUM.

TUSCARORA.

OHIO DENT.

KING PHILIP. R. I. PREMIUM.

Indian Corn (*Zea Mays*)—Varieties.

Most of us are familiar with Indian Corn in several varieties—sweet, flint, pop, and horse-tooth corn; of various colors, white, yellow, red or blue; and of all sizes, from that growing 12 feet high and bearing ears 12 to 16 inches long and having 16 to 24 rows of kernels, to the little dwarf sorts which mature an ear an inch to two inches long and grow 8 to 18 inches in height. Many have seen those varieties each kernel of which has a separate husk, and the rice corn with its sharp pointed, obliquely set kernels. In fact, the varieties of this species (*Zea Mays*) may be said to be almost endless.

We have selected a few tolerably well known kinds from among an assortment of fifteen varieties, laid upon our table by J. M. Thorburn & Co., and have had them engraved.

For use upon the table, boiled green, the different kinds of wrinkled, or sweet corn, deserve the preference. Most are rather late in coming to maturity, though maturing sufficiently for cooking in 60 to 80 days. Fig. 1 represents the little "Narragansett" corn, 8 to 10-rowed, red cobbed, one of the earliest, sweet, and excellent. This, and a small, longer eared, but smaller kernelled 8-rowed sweet corn, called "Extra Early," follow a poor, watery white corn, known as "Canada," and by other names. The Canada comes first to market, and on this account alone sells high. Fig. 3 is an excellent variety, rather late in maturing, called "R. I. Asylum," from its origin or use on the grounds of that institution. The ears are 8 to 10-rowed, of good size, and very sweet. The habit is about the medium size for sweet corn. It affords an abundant forage, and is prolific. The Stowell's Evergreen resembles this in the ears, which are shorter; it matures late, is sweet and prolific, and the stalks remain green and succulent a long time. This is a very good variety for sowing to feed green to stock, and is esteemed for the table. There is a black or dark blue variety of sweet corn,

called "Mexican," which is very sweet, prolific and only objectionable on account of its color. Its habit is dwarf, and it bears 2 to 5 ears close to the ground. Specimens on our table are from Mr. E. Williams, of New-Jersey. The large stalked, long eared kinds, are generally not so sweet as those of dwarfish habit. The flavor of the corn and its desirability for the table depend not only upon its sweetness and flavor, but upon the thinness of the "hull" or skin of the kernel, and the ease with which it parts from the cob. There are two or three very large varieties highly esteemed, as the Mammoth 8-rowed Sweet, which is very good. To ensure a succession for the table from the earliest time possible to frost, plant well soaked seed in rich, well prepared soil, on the 1st, 10th and 20th of May, and subsequently once a week until the 4th of July.

Field Corn is a more important subject for the consideration of the farmer, but those who do not provide any other for boiling, deprive themselves of one of the most delicious table vegetables. Excellent portraits of several varieties are given above. We distinguish three prominent groups of field corn, whether they are classified by color, as *white*, *yellow* and *red*,—by texture, as *flint*, *dent*, which is half flinty, and *flour*, which has no flintiness,—or by the number of rows, as 8, 12, or 16-rowed; and these characteristics are entirely independent of each other. The early maturing northern kinds are all flinty and usually 8-rowed. One of the best is the 8-rowed *Canada*, a small, bright yellow variety, with an ear 7 to 9 inches long, and having a very small cob: 50 bushels to the acre is not an unusual yield.—Fig. 2 represents very well this variety, though taken for the *Rhode Island Premium*, a new sort, which has attained a good reputation of late years. This is of a dark yellowish red color, and originated in artificially crossing three kinds, the *Canada*, 8-rowed *Yellow* of New-England, and a blooded variety of *Rhode Island*. It is of dwarf

habit, needs planting very close, like the *Canada* (3ft. x 2ft.), and yields 80 to 100 bushels per acre under the *best* circumstances. The color only is objectionable for meal. The ears are small, but very close, well tipped out and firm, cobs very small. Like this in color, but larger, is *King Philip*, fig. 6. It is a good variety, and needs close planting. The common 8-rowed *Yellow* of New-England so much resembles this in the shape of the ear that fig. 6 might pass for it also. The name "Dutton" was originally applied to a very compact, small kernelled 12-rowed variety, which was very profitable and sure to mature, and made sweet, excellent meal. The name is now given in New-England and New-York to any 12-rowed yellow corn, some sorts of which are very good. There are varieties of white flint corn, semi-translucent, and of various good qualities, almost identical with the yellow kinds in shape of the ear. The *Long Island White* is 8 to 10-rowed, large eared, growing 8ft. high, and yielding abundant crops. The meal is very sweet.—Fig. 2 represents a New-Jersey variety of white flint, not very flinty, and having a small indentation in each kernel. It is of large size, not profitable, but esteemed for the whiteness and fineness of the meal. The kernels are very large. Similar in quality, but quite different in growth and character of ear, is the *Ohio Yellow Dent*, fig. 5, which represents very fairly the Western and Southern varieties of the *Horse-tooth* group, except that there is more flintiness than usual to the kernels, and they are neither so broad nor deeply indented as is common. These varieties are never 8-rowed, seldom 10, but usually have 16 to 20 rows. The kernels are long, narrow and angular, and usually rich in oil and farina. The plant is very large, requiring to be grown in hills 4 feet apart each way, yet the yield is 50 to 80 bushels per acre, and crops of nearly or quite 100 bushels per acre have been repeatedly recorded. No. 4 represents the *Tuscarora*, of which there several slightly differing kinds.

This variety grows 5 to 6 feet high, the ear is moderately large and 8-rowed, the kernels large, of a chalky whiteness, and very light and soft. They may almost be pulverized in the fingers. The meal, if bolted, can hardly be distinguished from fine wheaten flour by outward characteristics, and it is said to be used considerably to adulterate flour with. It is valued by some persons boiled green for the table, and though not sweet, is acceptable. These are a few of the great number of kinds in common cultivation, and our brief notes will serve as a guide to selection or change of varieties.

When to Plant Corn.

Field corn planted early in May has usually to be replanted once or twice. This makes much unnecessary labor, for that planted some weeks later, usually ripens at nearly the same time. If the seed does not rot in the ground, the poor little yellow blades are frost bitten, and their shriveled ends pine for the hot sun. Those plants that survive the chills and rains of May, are not so healthy, or well prepared to take advantage of the warm weather when it comes, as that planted in the proper season, which in the latitude of most of New-England, New-York and westward is after the middle of May in almost all seasons; and often it is not best to plant before the first of June. No fault is more surely repented of than too early planting of corn. If well soaked, and placed in a warm soil, corn is very soon above ground, and a few warm days place it beyond fear of harm from cutworms, white grub, wire worms or crows—whereas that planted early in the month must do battle with all these for several weeks, if it survive the dampness and the frosts.

Broom-Corn—Varieties and Cultivation.

This crop is one of growing importance and interest. There is a large demand for "brush" of first quality to make brooms for exportation, and this, in addition to the great home consumption of brooms manufactured from this plant, makes the market quite steady. The soil adapted to the most successful culture of Broom-corn is a warm, rather light loam. It should be quick, and rich in alkaline salts. A large amount of vegetable matter, either in the soil or in the manure, gives an undue tendency to make leaf and stalk. Yet the soil should be rich enough to cause a quick, vigorous growth. Hence the usual practice is to manure in the drill with horse, hog, or sheep manure well rotted, and apply ashes and plaster to the plants at the first hoeing. If the crop is backward, a similar application (ashes and plaster, either or both) at the last hoeing, or when the plants are nearly half grown, will be found beneficial.

There are two prominent varieties—the tall and the dwarf sorts—and most cultivators give decided preference to the dwarf. Besides, as the Chinese Sugar-cane, the Imphee, and the Dourah corn are only varieties of the same species (*Sorghum saccharatum*), these are liable to cross, and many inferior sorts, both of the Broom-corn and of the Sugar-cane occur. Seed from only the straightest, finest, and toughest brush should be saved for planting, and that which has grown at a distance from any Chinese sugar-cane, Imphee or Dourah. Prepare the land as for Indian corn; mark it off in rows 3 feet apart, and drop the seed either in drills, or in hills about 2 feet apart, using as many as 15 or 20 seeds to a hill. The time of sowing depends

upon the exposure of the land to late spring frosts, as these seriously injure the crop. Broom-corn is usually planted just after corn planting. It is best to leave the ground so that the location of the hills or drills is well marked, for the young plants look so much like grass that a careless hand is likely to cut them up at the first hoeing, or run his cultivator into the row. The ground should be kept loose and well weeded, the cultivation being the same as that of Indian corn.

At the second hoeing or when the crop is no longer in danger of either frost or worms, the weakest plants are pulled up so as to leave 6 to 10 stalks to the hill, or an equivalent to 10 or 12 stalks to 2 feet in the length of the row. There is usually a strong growth of suckers, especially with the dwarf kind; these it is best to pull up to the time that the heads appear. When the seeds are full but still soft, the brush is harvested. This is done in several different ways. Either the whole crop is cut up, and the heads subsequently cut off 4 inches below the brush, bundled and laid up to dry in such a way that they will remain straight, and may be protected from dews and showers; or the heads while in the milk are broken down several inches below the brush, and left hanging at such a height that they may be conveniently cut off afterwards; or the tops of two contiguous rows are broken down lapping upon each other, which is called "tabling." The heads are thus supported, while they still further mature, and the stalks form a substantial table upon which to lay the brush to dry when it is cut off. The best brush is dried under cover; and to bring the best market price, it should be of a bright, greenish color, springy, tough and straight. When dry, the seed is usually removed by hand by drawing it through a hatchet made for the purpose; a horse power machine is also used.

Best Potatoes to Raise for Market.

B. Stephens writes to the *American Agriculturist*: "Having been engaged in selling potatoes in New-York for the past eighteen years, I would state for the information of farmers, that in potatoes intended for this market, the following qualities are requisite: large size, white skin, white flesh, and to be dry and mealy when cooked. Such are sure to command ready sale and the highest prices, and all not having this character will have to be sold as second class or 'shipping potatoes.' Therefore it is folly for a farmer to use his ground for a poor crop, when the same labor and expense, with a proper selection of seed, in regard to the requirements of the market, would yield a larger crop of potatoes, which would meet with ready sale, and at larger prices, at no more expense of freight and selling. We have a great variety of new seedlings brought to notice every season by interested parties. In order to sell seed, they make great statements, as to quality and large yield (on paper), but when sent to market as a farm crop, they are found wanting, and die out to make room for something new the next season. The valuable varieties of potatoes and those that are in good demand, are those that have been originated by farmers, and their merits have brought them into general use. Such are the Blue Mercer, Dykeman, Peach Blow, Prince Albert, Jackson White, June, etc.; whereas of many fancy kinds, put before the farmers from year to year, by seed raisers and sellers, none are worthy of planting as a farm crop. The following are some of the well known kinds from which farmers can make

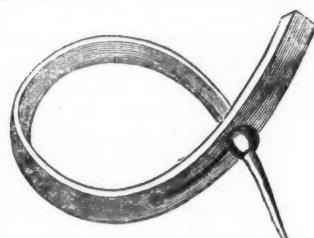
selections, suitable to their soil, being sure of good average yield and having an article that is salable at all times.

For Early: Dykeman, June, Buckeye and Jackson White, maturing in the order here given—the Dykeman being the kind universally grown by the early truck raisers of Long Island and New-Jersey. For later, the Light Blue Mercers, Prince Albert, and Peach Blow. There is also a new variety, the White Peach Blow, originated and raised in Monmouth Co., N. J., which has come to market the past season, which bids fair to be a valuable potato and worthy of trial. It is a white skinned potato, with a pink eye, of good size, white fleshed, cooks dry and mealy, very much resembling the Buckeye in outward appearance, but is a late grower, and is said to yield equal to the common Peach Blow.

Field Beans—Culture and Variety.

There are three varieties of white field beans known to farmers and in the market. They go by different names in different localities. Burr designates them as the Blue Pod, Pea bean, and White Marrow. In New-York market they are called Medium, Caxton, and Marrowfat. The Blue Pod is the common "white bean" of New-England and New-York, and the Medium of Washington market. It is the earliest of the field beans, and particularly useful in filling out where corn and other crops have failed. The Pea, or Little White bean, is richer, smaller, more roundish, not quite so early, but producing equally good crops. Its small size is against it in market, though its beautiful white color is in its favor. In so indiscriminating a market as that of New-York, it sells lower than the first mentioned kind. The White Marrow, Marrowfat, White Egg, etc., is considerably larger than either of the foregoing. Burr makes the following statement in regard to the comparative size of these three sorts: of the Pea bean, 4400, of the Blue Pod, 2700, and of the White Marrow, 1200 will fill a quart. The Marrow is not quite so sure a crop in wet seasons, owing to its tendency to run; so that on a good soil too highly manured, or too rich in ammoniacal matter or vegetable mold, the plants make too much top and bear too little fruit. The soil best adapted to beans is a good loam or gravelly soil, which contains a considerable portion of soluble mineral ingredients, but not much vegetable and nitrogenous matter. The tilth should be good, not necessarily deep, and freedom from weeds is desirable. Unless there is danger of the crop running to vines, plant in drills two feet apart, and scatter the seed in the drill. The practice of planting in hills 2 feet apart each way, is good, especially for the Marrowfat. The planting should not be delayed after June 20th as a general thing, and then only the Blue Pod or common white field bean should be used.

The cultivation consists in keeping down the weeds and stirring the soil. This should, so far as practicable, be done by horse labor. When the plant turns yellow, and the pods begin to dry, they are pulled by the roots and stacked between stakes 4 to 6 feet high, driven 6 to 8 inches apart; pieces of wood or a few stones keep the bottom plants from the ground. Here they are allowed to dry thoroughly, and many of the unripe pods mature and dry quite well. The threshing is done either in the field or on the barn floor, and if well dried, the crop will be fit for market at once, or may be kept for almost any length of time in dry bins.



A New Bag-string.

"J. L. M.", Orange Co., N. Y., sends a specimen of a little time saving contrivance which looks as though it would work very well. It is a bag-string, made of stout leather, in the shape of a long, narrow wedge, about half an inch wide at the broad end, and gradually tapering to the other extremity. At $2\frac{1}{2}$ inches from the wide end, a button hole is made by punching two holes about an inch apart, and connecting them by a slit. At 7 inches from the same end is placed a catch, which consists of a short, rounded cone of lead, or some white metal. The string is attached to the bag about 2 inches below the top by means of a rivet or stitch through its center. To fasten the string, put its small end through the slit and draw it until the catch passes through as shown in the figure. To untie it, give the large end a jerk and the catch is immediately loosened.

Waste Lands near Cities.

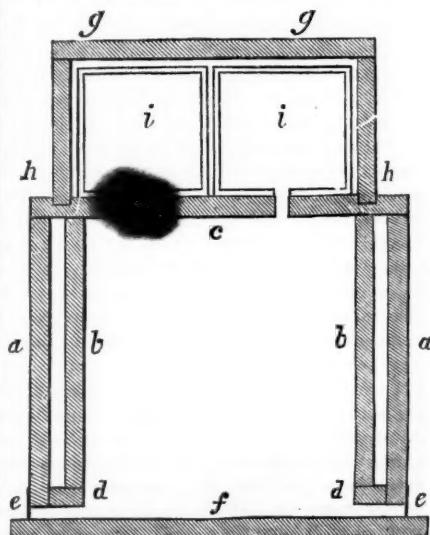
In the suburbs of many large cities in this country are tracts of land lying in open commons, and unused except as play grounds for children, with perhaps here and there a cow or a goat finding scanty pasture. They have mostly been bought up by speculators, in anticipation of their being wanted for building purposes; former farm fences have been removed; in some instances streets are cut through, and they are kept awaiting purchasers. We know plots in the vicinity of New York and Brooklyn that have been left in this condition for ten to twenty years. They are yielding no returns to their owners, and the yearly taxes and accumulating interest on the cost in many instances far outweighs the rise in the market value of the property. We think at a moderate estimate there are enough of such plots lying unused in the vicinity of the two cities above named, to produce vegetables enough for 50,000 persons.

Now, here is an opportunity for wide-awake gardeners of either large or moderate means, to secure a good living and confer a positive benefit on community. The use of much of this land could be had from year to year at a comparatively small rental—less than one third of the interest on its estimated value. The facilities for obtaining necessary manure and help to work it are abundant in the adjoining cities, and the nearness to market, where every variety of fresh vegetables is in demand, gives a great advantage to the producer, over those at more distant points who have to pay heavily for freights or teaming expenses. It would not pay to invest in permanent improvements, or in raising fruits requiring several years to come into bearing; indeed, owing to the exposure to depredations from marauders who usually abound in cities, it would hardly be safe to attempt fruit culture, even though continued possession could be had of the grounds for a term of years. But annuals of every description, particularly vegetables that will not bear distant transportation,

may be made very profitable. Some enterprising men of small means, particularly German gardeners have already improved such opportunities, and we know of several who are making a comfortable living and something over, by this means. It would be doing many a poor family a kindness to suggest this plan to them; there is room for hundreds, and the products of the land are all needed, and find a quick market.

A New Home-made Beehive.

The engraving represents the section of a beehive, made and used by M. S. Woodford of Erie Co., N. Y., who thus writes: "I propose to describe for the benefit of the readers of the *Agriculturist* a beehive that I make and have used for four years. First I make the four sides of a box, *b*, as recommended by Mr. Quinby, 12 inches inside each way. I then make another, *a*, fifteen inches inside each way, and one inch deeper than the first one. A top board, *c*, is made, large enough for the larger box, and rabbed back from the edge all around to receive the cap, *g*, made 13 inches inside. This top I nail to both boxes one within the other. The strips, *d*, are then nailed on the inside of the outer and on the lower end of the inner box. This closes up the space between the two, and makes a hive warm in winter and cool in summer. The bees will not come out of such a hive in winter, unless the weather is warm enough to allow them to do so without harm. To prevent millers depositing their eggs under the edge of a hive I take a strip of hoop iron, *e*, $1\frac{1}{2}$ inches wide, and nail around the bottom, forming a band. This may be readily done by any one not a mechanic, by cutting it in four pieces, one to fit each side and make close joints at the corners, punching holes and filing the edge straight. Nail them on the hive so that the iron will project about half



an inch below. The edge of iron will rest on the bottom board, *f*, leaving a half inch space between the bottom of the hive and the board, giving the bees a chance to operate on the board out to the iron. To give the bees an entrance, a notch is cut in the front piece of iron *e* of an inch deep and $\frac{1}{2}$ of an inch long. I also give them another entrance, three and a half inches above the alighting board, by inserting a plug which reaches through the two boxes with a half inch hole in the center. Some may think this hive too expensive, but from four years experience I have found that it pays.

Early Sheep Shearing—Washing.

No real lover of his flock drives his sheep to the washing without a feeling akin to remorse. He would not do it were it not that he believes that the market demands wool washed on the back. Though it is true that washed wools sell more readily, yet in times like these where any and all wools are quickly taken up, an opportunity for reform is offered which ought not to be overlooked. Sheep which are to be washed ought not to be sheared before settled warm weather. In many seasons this will not come before the last of June. They are then in much less danger of taking cold and receiving permanent injury. They ought to be washed only in water which is so warm that the washers do not find it uncomfortable to stand in it with the sheep. The shock to the flock, of the immersion in cold water and being subsequently exposed to raw winds—followed by being reduced to a state of absolute nakedness, is sufficient cause to account for "snuffles," and prevalent lung difficulties. The rule in regard to washing is to wash as little as possible, but even this involves the necessity of thoroughly wetting the entire fleece. It is a great object to have the sheep sheared as early as they can be, and fully a month may be gained if they are shorn without washing. The fleece starts better, the sheep seem actually benefited, weakly ones often brighten up and do well, and all are in much better condition to bear the autumnal storms which often come before the flocks are sufficiently clad to bear the change well. Contagious diseases are not unfrequently communicated by farmers using the same washing pens with their neighbors, which may be unavoidable.

If the sheep be shorn unwashed, particular care should be taken to have them all well tagged, and all dirt removed which is not too thoroughly incorporated with the fleece. The discount of one-third in price for unwashed wool is not fair, yet the farmer may well submit to it for the advantage his flock gains, if it be a valuable one, knowing that like other abuses it will be corrected by time. Sheep should be shorn on smooth, clean floors, by careful, humane, quick, experienced men. The cleanliness of the floor, the removal of dung and straw brought in upon the feet, are important.

How to Designate Lambs after Weaning
—No "Uncouth Provincialisms."

Mr. Randall, who is excellent authority on sheep, suggests the introduction of the word *teg*, as used in some parts of Great Britain to designate lambs between weaning and shearing, so that they may not be confounded with the young stock between the time of the birth of these and shearing of the last year's lambs. An unnecessary word is a nuisance, especially if it means nothing of itself. American farmers the country over, so far as we know, distinguish their lambs as "sucking" or "suckling lambs," and "old lambs," and this is distinction enough, and sounds to us much better than "ram teg," "ewe teg," "wether teg," or even *teg* alone. Besides, farmers not seeing the necessity will not adopt it. Words that are really needed are suggested by the necessity and come of themselves, or are adopted without argument.

LEARNING teaches youth temperance, affords comfort to old age, gives riches and contentment to the poor, and is an ornament to the rich.

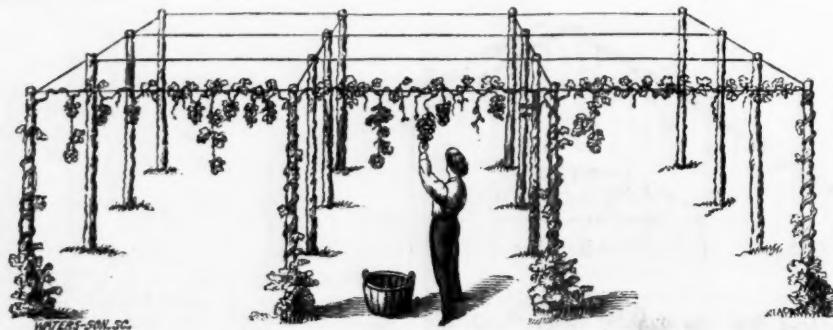


Fig. 1.—COLLINS' HORIZONTAL HOP YARD.

Sundry Notes on the Cultivation of Hops.

The staminate or barren flowers, and the pistillate or fertile flowers of the hop are borne upon distinct plants, and cultivators distinguish them by the terms male and female. The two plants are only to be recognized with certainty when in flower. The staminate or male flowers, are in loose clusters springing from the axils of the leaves, as in fig. 2, which represents the upper portion of a flowering branch. A separate flower, consisting of a calyx of 5 sepals and as many erect stamens, is also shown. The pistillate flowers, which are borne in little cone-like clusters, are very simple in structure, and consist of a scale-like calyx, with the pistil at its base. After fertilization, the clusters of the pistillate flowers increase very much in size and become hops (fig. 3), which consist mainly of the enlarged scales of the calyx, each with a little nut at the base. Near the lower part of the scales are numerous oblong, resinous grains, called *lupulin*. One of these, very much magnified, is shown at the lower right hand corner of fig. 3. It is upon the lupulin that the valuable properties of hops mainly depend; hence in the collection and management of them, care should



Fig. 2.—MALE HOP-VINE.

be taken to lose as little as possible of this. Lupulin is often incorrectly spoken of as the pollen of the hops. This is a great mistake, as it appears only in the pistillate or female flowers, and long after they have been fertilized by the pollen of the staminate or male plants.

The hop growers of the central counties of

New-York, though recognizing several varieties of the plant, some of which are indigenous, and others, as the "English cluster" and the "grape" are imported, have very indefinite preferences, and in most yards two or three kinds are found. Hops, like corn, grow on all varieties of soil, from swamp muck to gravel knolls, and any good corn land is suitable for them. On bottom lands near swamps or creeks, rust often injures the plant, but this is seldom damaging on the flats above the secondary banks, or at a distance from bodies of water or wet land. The Hop-yard should not be exposed to high winds, and so the proximity of forests or hills in the direction of the prevailing storms is favorable, but not essential. In preparing the ground, put it in good condition and plant corn, potatoes, beans or some similar hoed crop. Leave places for the hop hills 8 feet apart each way in the rows. It may be best to mark out the field for hops accurately, and plant the corn between, being guided by the marking. Set out the hops soon after planting the corn. According to the usual practice, the hop poles are not placed until the second year; but if the horizontal plan be used, it is best to set the poles or stakes the first year.

The hop has underground stems which start from the crown of the root, run horizontally a few feet, and coming to the surface form new plants. The hop yard is dressed in the spring, but not until after a growth of some inches has been made; the earth is then drawn away from about the crown, and these underground stems are removed. These are laid ~~under~~ under cover, occasionally sprinkled, and ~~keep~~ keep some weeks. All the growth which has been made is then cut back to prevent frost injuring it, and the second starting is considered more vigorous and fruitful. The *sets* are the underground stems cut in pieces 6 or 8 inches long, having at least two pairs of eyes. Four are set in each hill. A dibble is used to make the holes, if the ground be mellow, and the sets are buried with the tips about 2 inches below the surface. In hard stony ground they are planted much like potatoes, with a hoe. The sets from male and female plants are carefully kept separate as they can not be distinguished. Six hills of males to the acre are sufficient. In hop yards on the plan described below, the male hops are trained upon poles of the usual length which makes the distribution of the pollen sure and uniform. The plants are treated like corn or potatoes. If stakes are set, the hills are better protected and the extra fruit which will be produced upon them will pay for the trouble. Even that gathered the first year from the tops of the corn, if no stakes are used, is considerable.

At the first hoeing a one horse plow is used, subsequently a cultivator. In autumn, and when the vines wither, cut them up, house the stakes, and throw upon each hill a good forkful of dung, which answers both as mulch and manure.

When the usual hop poles are used, they are provided before the next spring. The supply comes from Canada, and they are worth 15 to 20 cents each. They are usually 18 to 24 feet long, straight and sound, and are set deeply and firmly in the ground, two to a hill, and inclined towards the south. This is a very heavy expense as there are 700 or more hills to an acre. Besides, in high winds many are often prostrated, to the no small damage of the crop, the poles, and the profits. The vines will climb to the tops of the poles, and the side shoots, where on the hops are produced, swathe the poles and vines, crowding and pressing one another; they are much blown and whipped about in the winds, and are often broken off. To obviate these difficulties and to save expense, a system of high horizontal wires was introduced—the wires being supported at the ends of the field and by stays at intermediate points. The hops were trained upon strings pendent from the wires. Both these methods require the cutting up of the vine near the ground for gathering the fruit, and these wire yards are not unfrequently greatly injured by lightning striking them.

A plan has been invented and patented by Mr. F. W. Collins, of Morris, Otsego Co., N. Y., which obviates many difficulties heretofore encountered, and saves 75 per cent. of the expense



Fig. 3.—FEMALE HOP VINE.

of poles, etc. This is shown in the engraving, fig. 1. The poles or stakes are 9 feet long, about as large as bean poles, and are set 1 foot in the ground. The outside stakes are larger and set deeper to avoid the necessity of bracing them. Common "wool twine" is tied to the tops of the end poles, and looped about the tops of the others by a "half-hitch." This is done on horseback very easily and quickly. The cords run in four directions from each interior stake, at a height of 8 feet. The spring treatment has been already described. When the vines begin to run, four strong shoots, one from each root, are trained upon the stake and tied with woolen ravelings, wet straw, or other soft string. The hop winds about perpendicular poles with the sun—that is, from left to right. At each hoeing all the other shoots are gathered in the hand, rolled into a mass without breaking them, laid upon the ground and covered with a clod or stone. They soon wither. If cut off, the plant would bleed. The four vines reach the top of

the stakes very soon, and then a man on horseback, or carrying a stool, goes from hill to hill, training each vine upon one of the 4 divergent cords. Those from opposite ends of the same cord will meet and pass—each will reach the next pole probably, and perhaps go beyond it, though it may be pinched off at the end. The joints on the horizontal part will be short, and the laterals very vigorous. Upon these side shoots all the fruit is produced, and it is the universal testimony so far as we have evidence, that much more is borne on the horizontal system than on the other, and that the hops are larger and finer. This is to be expected from the fact that the fruit branches hang swinging perfectly free, and thoroughly exposed to the sun. The ground is also warmed by the sun much better than when the tall poles are used.

The horizontal hop yard has received the attention of many of the best hop growers of Central New-York, and from what we can learn it possesses very important advantages. These are thus enumerated by the editor of the "Hop Growers Journal": Economy, earlier ripening, greater yield, less labor, less peril from wind, less shade, and avoidance of bleeding. The last specification is particularly noteworthy, for great damage is annually done to the roots by cutting off the vines near the ground at harvest, as is uniformly done in order to raise and remove the poles with their burden of fruit. Many vines are killed every year, and all are weakened and succumb after a few years; so that under the new treatment the longevity of the plant is greatly increased, as well as its health. In another article we may give a description of the methods of harvesting this crop, kiln drying, etc.

Soiling Cows on Dairy Farms.

The feeding of milch cattle in a way to save all their manure, and to enable them to make the most economical use of all that grows upon the land devoted to fodder crops, is accomplished by what is termed "soiling." This is seldom practised in this country, not from any lack of minute explanation of the system and of its advantages by the agricultural press, and not by reason of there existing any reasonable doubts whether it would succeed in this country. It has been successfully practised by farmers in many different localities. Nevertheless few farmers can be brought to believe that the benefits are so great as they really are, and they seem to feel as if they could not spare the labor required to take care of the stock in stables. Besides, few farmers have buildings adapted to the purpose, and so centrally situated that the labor of hauling the fodder from the fields to the cattle is not a great bugbear. Soiling cows will pay, and may easily be done on many dairy farms. The advantages may be briefly enumerated, viz.:

1. The cows are kept in better condition, give more milk, are kinder, more docile, and hold out in milk longer, than if allowed to roam.

2. The interior fences of a farm may be entirely dispensed with; a large yard being provided for the cows to take exercise in for an hour or two in a cool part of each day.

3. The entire product of the land is secured and fed to the cows. None of the crop is spoiled by the droppings of animals, nor hurt by their tread, nor by being lain upon; nor is it

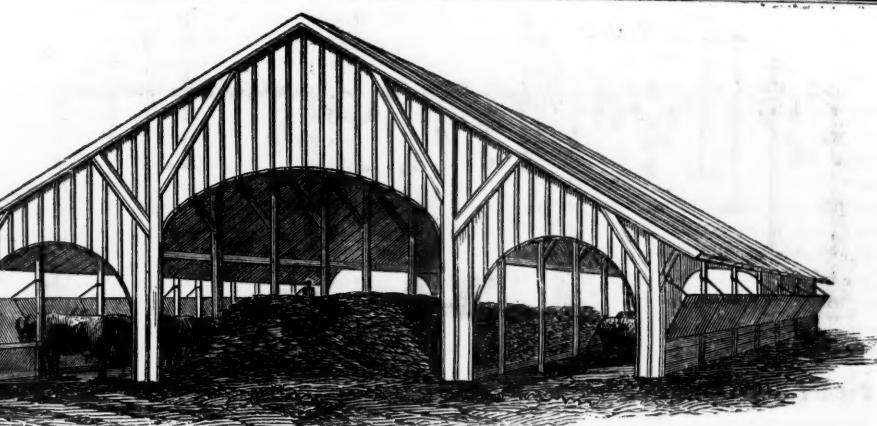


Fig. 2.—ELEVATION OF SUMMER FEEDING SHED—FOR DAIRY OF FIFTY COWS.

stinted in its growth by close cropping during the heat of summer when it can least endure this.

4. Both the solid and liquid excrements of the animals are saved without loss, to be applied to the soil at the best season, and in the best form, according to the judgment of the farmer—an advantage which out-weighs all the others.

We do not propose to argue the question of expediency. The advantages above stated are obvious facts, or any one may prove them such after having had sufficient trial to learn how to manage with reasonable economy. The question is, How to do this; at least, How to BEGIN.—Knowing that Mr. Donald G. Mitchell—the author of that very delightful and instructive book "My Farm of Edgewood," which we have taken occasion more than once to commend to our readers—had given much thought to this

only central, but within easy 'hauling' distance of the muck bed, from which I counted upon a weekly supply for the accumulating manure heap. And yet again, this manure heap would be within easy carting distance of the fields to be tilled the following spring. A shelter for the manure, under the conditions supposed, I should consider quite as important as a shelter for cattle. It is the habit with many, who grow corn-fodder to help out the August pasture, to scatter the newly cut stalks over the parched fields. Under these conditions, with a fiery sun, and a scorched turf, I believe that the loss of fertilizing qualities in the manure, is enormous. With the feeding shed, every particle of manure would count for its true value; the cattle would be protected from the sun, and with a sufficient head of water at command, and a few feet of

hose, the utmost cleanliness might be secured and the temperature moderated at will. For success in soiling, particularly with corn-fodder, heavy manuring is essential; and the more rank and

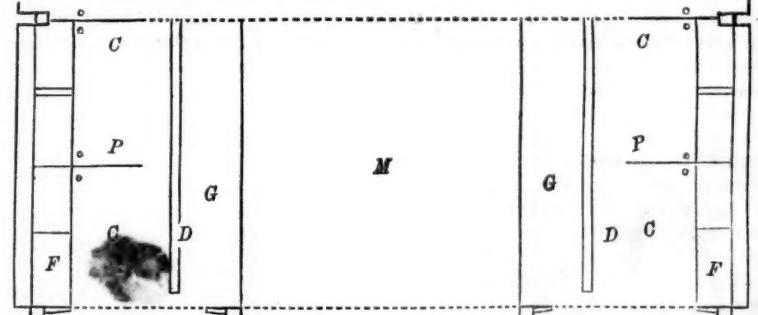


Fig. 2.—GROUND PLAN OF 16 FEET IN LENGTH OF THE FEEDING SHED.

REFERENCES.—C.C. Cattle floors; D.D. Drains for liquid manure; F.F. Feeding troughs; G.G. Gangways in rear of cattle; M. Manure heap; P.P. Two of the partitions between pairs of stalls.

subject, we wrote him for permission to publish his plan for beginning a system of soiling on an old farm, which is detailed in the book above referred to. Instead of this, Mr. Mitchell writes:

"I send you a rough draft of the shed I had proposed to build, which would have been a cheap but substantial affair, and which as a manufacturer of manure alone, would, I think, have paid for itself in three seasons. Were I to erect all buildings *de novo*, I would so arrange them as to make one feeding place serve for both seasons. But my old winter stables were neither centrally situated, nor were they so disposed as to admit of an economic handling of the corn fodder, or other green food which might be supplied. And this last is a capital point, when reckoning up the advantages of feeding a herd of twenty to fifty animals, two or three times a day, throughout the busy season. Green corn-fodder is bulky and heavy; every half mile of transport counts largely; and if the fodder be handled over two or three times for bestowal along the mangers of interior stabling, a great deal of labor is needlessly sacrificed.

"Again, my proposed summer-shed was not

ammoniacal the dressings, the greater will be the succulence; and as the crop matures no seed, a reserve of mineral food will be left on deposit in the land for subsequent cereal crops.

I do not think you can urge soiling too strongly; and I am satisfied that in ten years time no good dairyman upon smooth lands within close neighborhood of towns, will ever turn his cows to pasture."

THE PROSPECTIVE DEMAND FOR HORSES AND MULES.—Hundreds of thousands of horses are used up and killed in the operations of war. The high and rising prices are a temptation to sell, but we counsel all farmers who can do so, not to sell their young mares, but breed from them, if they are fit for it. The demand for mules is equal to that for horses, and their consumption is quite as large. The mule, it is well known, is marketable after it is two years old, broken or unbroken, and no guarantee of soundness is required, while the horse is not salable until 4 to 5 years old, and must be sound and well broken, and will bring no more as a general thing than the mule.

Corn for Fodder

Every farmer who keeps cows, who makes hay and has less than he can use to advantage, or who on any account wishes to increase either his summer or winter fodder, ought to sow corn. The most preferable sorts for this purpose are the largest kinds of sweet corn, and next, the large Southern or Western varieties. The seed is usually soaked and sowed rather late in the season, broadcast. It is much better to sow in drills. The land should be in high condition, and a liberal dressing of good stable or other ammoniacal manure is advantageous. Turn light furrows with a one-horse plow, 3 feet apart; scatter the seed, so that about 10 kernels will fall in a foot. This is done very easily and rapidly. Cover with a sharp-toothed harrow, or a harrow turned bottom side up. It is no disadvantage if the seed be scattered considerably. After the corn comes up, cultivate at least twice; and after this, before cutting for curing, go through and pull any large weeds which may have started, as these may impart a bad flavor to the milk, when fed to cows.

The crop is not an exhausting one, although a weight of four tons of dried fodder is sometimes taken from an acre. No seed ripens, hence the draft upon the mineral ingredients of the soil is not great. This affords a most excellent green fodder during the heat of August and September, when grass often fails; and when dried, gives an article nearly if not fully equal to good meadow hay, especially as fodder for cows.

Have Cattle any Right in the Highway?

A correspondent writes to the *American Agriculturist*: "When the subject of excluding stock from pasturing in the streets came up for discussion in our Farmers' Club, it was claimed by certain trespassers that the roadway belongs to the town or county, and that therefore all the inhabitants have a right to feed their cattle in them. But it was shrewdly replied to this, that if so, then the town or county must make half of the fences on the lines, and the people must be perpetually taxed for the purpose. At this, the trespassers and their friends shrugged their shoulders. Moreover, the Chairman, being well versed in the law, rose up and said, 'The common law of England, (which is also our law,) settles this matter very justly and plainly when it says: 'The king himself has no right to the highway, except for purposes of travel and repairs; also, that the trees and stones, except such as are needed for repairs, with all other minerals, and the grass, belong to him through whose land the highway passes.' Here the matter ended for that evening. But still the nuisance of street cattle is not yet abated with us."

How to Choose a Cow.

There is always some risk in buying a cow, of whose previous character and history we know nothing, for there are no infallible signs of excellence. A rough, scrawny, coarse, ill-shaped cow is often a noble milker. Yet there are a few points generally agreed upon by experienced farmers, which it is well to consider before purchasing. A small boned head and light horns are better than large. Long legs make too wide a gap betwixt udder and milk pail, and long-legged cows are seldom quiet feeders, but wander about too much. A slender rather than a thick neck, a straight back, wide ribs and

broad brisket, are to be sought for. The body of the cow should be large in proportion to head, neck, and legs, though not excessively large; and the hind quarters if large out of proportion indicate good milking qualities. Medium sized cows, all things considered, prove the best milkers for the amount of feed they consume. The color of the hair has probably nothing to do with the milking qualities, and good looks should be regarded but little in purchasing dairy animals. As to the color of the skin, a bright yellow, approaching that of gold coins, creamy color within the ears—this and good rich milk are very apt to go together; and withal a soft flexible hide, loose over the ribs and rump, is also to be sought. The udder should be large, soft, and full of veins, which ramify over it, with full-sized milk veins stretching forward along the belly, and the teats be large and not crowded together. Test the cow's disposition and inquire about it. Irritable and nervous cows are unpleasant to handle, and almost always scanty milkers. Something can be ascertained from the looks and motions. Large, mild eyes, easy quiet motions when driven, and gentleness when handled, indicate good nature. What the butchers term "good handling" is an important quality in a milch cow, for it indicates not only good milking properties, but easy fattening, when service in the dairy is over.

Irrigation with Sewerage Water.

Few of our farmers appreciate the value of liquid manure. The occasionally published results of the use of sewerage water for this purpose, are opening the eyes of others to its importance. This is one of the ways in which the city may pay the immense debt it owes the country. Near Edinburgh, Scotland, certain parties wishing to turn an honest penny, have cut dykes by which they can flood the land at pleasure with this sewerage water from the town. An American farmer traveling in England, writes of one particular farm as follows: "These fields, which were formerly barren wastes, merely the clean, dry sands thrown up by the sea in former times, have been so arranged that they may be flooded by this stream. The expense of the operation was great—about \$100 per acre—and the annual cost of flooding is also four or five dollars to the acre beside; but the crops of hay are so frequent and enormous, (ten cuttings being made in a season,) that some parts of the meadow rent for \$100 a year per acre, and none less than \$75 dollars!" Prof. Johnston estimates the fertilizing value per annum, of the sewerage of a town of one thousand inhabitants, as equal to a quantity of guano which would cost thirteen hundred dollars.

We should very much like to see the waste water of our cities turned to some good account; but throughout the country, much might be realized by turning streams, at suitable times, over meadows and pastures. Everybody knows how rich our bottom lands become from the annual floods of the creeks and rivers which run through them. Why may not other lands be fertilized by dirty water on purpose? For instance, when a farm lies on a gentle slope, even a small brook can be made to do a great deal of service. If the stream comes in from the hill above, cut a channel for it, skirting the upper sides of the farm, and carry it along on the upper line as far as possible. At suitable intervals, dig out small channels, on the lower side of the stream, through which the water can be let on to the fields at will, (gates having been made at

the openings). There may be a series of meadows flooded from the same source. Those who have tried a plan like this, say that a single year's flooding will increase the growth of grass equal to a top-dressing of thirty loads of dung. The muddiest streams are best, as they carry suspended a good deal of the fertile matter of the land through which they have flowed. We all know that wherever road-washings can be brought in, they are found very enriching. Yet clear water is beneficial, simply as water, and because it holds valuable substances in solution.

Home-Made Poudrette.

Mr. John Marston, Bucks Co., Pa., who has been familiar with the manufacture of poudrette on a large scale for many years, prepares it for his own use in the following manner: His vault is built of stone, 8 by 4 feet square and four feet deep, the bottom laid in stone and the whole cemented over. The privy is 4 by 3½ feet; leaving 4½ feet of the vault outside of the house. This portion is covered by two slanting doors placed so as to shed rain. Within these doors is placed a heap of fine coal ashes and a shovel. The coal ashes can be thrown over the droppings every few days with but very little trouble. Mr. M. finds the coal ashes to act as an excellent absorbent, and he prefers them for this purpose to any kind of earth.

A Prairie Farmer Advocates Shallow Breaking.

A farmer of Christian Co., Ill., writes, objecting to the letter of J. Weldon, on page 74, March No. of the *American Agriculturist*, not because it is not true, but lest farmers who may be thinking of moving out upon the prairies might be scared. He says Mr. Weldon "makes it appear as though a man must bring team enough to break the sod a foot deep." This is a wrong inference, for our correspondent expressly advised to have neighbors put their teams together for this work. The advantages enumerated by him were, it will be remembered: getting the ground into good tilth at once; securing heavy crops of corn (70 to 80 bushels to the acre), and a lasting advantage to the land. Let us contrast these with the advantages of using a light team and plowing as shallow as is possible or convenient. There is a saving of labor, so large a team not being needed; securing more quickly the rotting of the sod, if the plowing be done at the right season; and the ability to do more breaking during the season adapted to breaking, (which is no advantage, because the breaking may be done at any season if it be 8 inches to a foot deep.) The benefits of heavy crops and lasting good to the land, ought not to be lost sight of even by the pioneer whose only reliance is one pair of oxen and a horse to do his work. Such a man, if he be a reader of the *Agriculturist*, goes upon his prairie farm with the ideas of both of these pioneers. He knows that if he can break 8 to 12 inches deep he is nearly sure of a first rate crop of corn. He knows that with his own team he can only break very shallow, and that the crop of sod corn got from the land will hardly pay for sowing and gathering. He knows that during the early part of summer all he can break shallow may be sowed to wheat in the fall or spring, and that the soil may be subsequently deepened, without using such a heavy team as is necessary in breaking deep.

So he borrows teams enough, if he can, to break 5 or 10 acres for corn as deep as he can, and then continues his shallow breaking for wheat with his own team. Our correspondent gives his last year's experience, as follows:

"I moved to a raw prairie farm last spring, and with a team of three small horses and a 12-inch Moline plow, broke eighty acres between the 6th of May and the 1st of July, and planted and cultivated twelve acres of corn besides, on old ground, (for it won't do to depend on sod corn). I sowed wheat on the new ground last September without replowing, and it looks well now, March 8th. The *best* time to break prairie, is from the middle of May to the first of July, though it will do from the first of May to the middle of July. If it is broken before the first of May, it won't kill all the grass, and if broken after the middle of July, the grass will be killed dead enough, but it will not rot enough that summer to be in good condition the next spring. The breaking should be done as shallow as the plow will run, because one of the main objects in breaking is *speed*, for a man wants to get as much done as possible while the season lasts;—another reason is, that sod which is broken thin, will dry out and die quicker, and consequently rot sooner, than when it is broken deep."

FENCES FOR PRAIRIE LANDS.—At a recent meeting of the Topeka (Kansas) Farmers' Club, the subject of fences for the prairie was discussed, at which there appeared to be a preponderance of opinion in favor of live hedges of Osage Orange, or other suitable plants. The White Willow was well spoken of, although it was stated that great impositions are being practised by dealers selling the common willow instead of the genuine article. One gentleman advocated stone walls as a protection against the sweeping fires which sometimes devastate that region: this method, however, would be practicable only in favored localities, and the burnings will cease as the settlements advance.

Hints from the Markets for Cultivators.

Every farmer who sends produce to New-York, and who at any time visits this city, may spend several hours profitably in passing through the general markets, and the commission houses where farm products are received and disposed of to dealers. The first impression will probably be of surprise at the magnitude of the business done. Ships, sloops, steamboats, barges and railroad cars daily deposit at the receiving depots the yield of thousands of acres. Washington Market, the principal center of trade in slaughtered meats and vegetables for the daily consumption of the city, is inundated with a flood of eatables of every description, from mammoth oxen to mushrooms, and to the inexperienced it appears that such a vast accumulation can never find purchasers. But a few hours will see the whole stock disposed of and distributed through retailers to the kitchens of Manhattan Island, Brooklyn, Jersey City, and the surrounding suburbs. Every substance fit for food, and much that is unfit, will surely sell at some price—the best to the wealthy, the inferior to those who must consult their pockets before their palates. Upon inquiry it will be found that but a very small proportion of the articles offered, are *first class*, that these command the readiest sale, and at prices in much greater ratio to cost of production than can be had for produce of common quality. Premium beef, cost-

ing little if any more to produce than that half-fattened, is sought for at 25 cts. per lb. retail, while the poorer grades bring only 12 to 18 cts. Extra apples, pears, peaches, melons, etc., raised at perhaps 10 per cent. more of labor and expense, command 50 to 100 per cent. more in price. Butter neatly made, well worked, and put up in nice packages, (the extra pains costing the producer not 5 per cent. more than the ill-looking but powerfully strong specimen from a neighboring dairy) will readily bring 25 to 30 per cent. better returns; and so on through the whole list of table supplies. A farmer with his eyes open will take a hint here and improve on it this very year, and find that with less land and less capital he can make more money by attention to *quality* rather than *quantity*.

Another noteworthy feature observable in the market is the necessity for system. Every wholesaler is receiving produce from hundreds of different parties. As the largest transactions are on commission, he must be prepared to render to each man the returns for his own particular lot, or his business will soon suffer. Nobody will be satisfied to receive an average price when he knows his own goods are above average quality. Now how can the dealer keep such matters straight unless the packages sent to him are properly marked? Men in the business assure us that almost every day boxes and barrels come to hand simply directed to themselves, with no accompanying note of their contents, and no marks by which to know where they came from. Perhaps after waiting a few days to ascertain something definite, the consignment deteriorates in value, or there is a decline in the market, and the goods are sold to the best advantage possible; then perhaps a letter of directions comes to hand, and after that, when returns have been made, another note is received, filled with complaints and wholesale charges of dishonesty against all New York dealers, and the rest of mankind. *Moral* on this head: Before you are ready to open an account with a commission merchant, write to him for specific directions, just how he wishes to have goods forwarded, how marked, etc.; then follow his plan, and he may be justly held responsible for any neglect. We are glad to believe that the well established houses engaged in such business here, are anxious to do the fair thing; let farmers do right by themselves.

The Shape of Carriage Wheels.

An expression in an article condensed from the Coach-Maker's Magazine in our February number, has been construed as objecting to setting the spokes so that the outer side of wheels shall be "dishing"—whereas it was simply a demonstration of the fact that the rims or tires ought not to be "a narrow section of a cone." This has led to several communications in regard to the necessity of having the spokes set outward, and not perpendicular to the rim. Mr. S. Edwards Todd, writes to the *Agriculturist*, proposing and answering the following question:

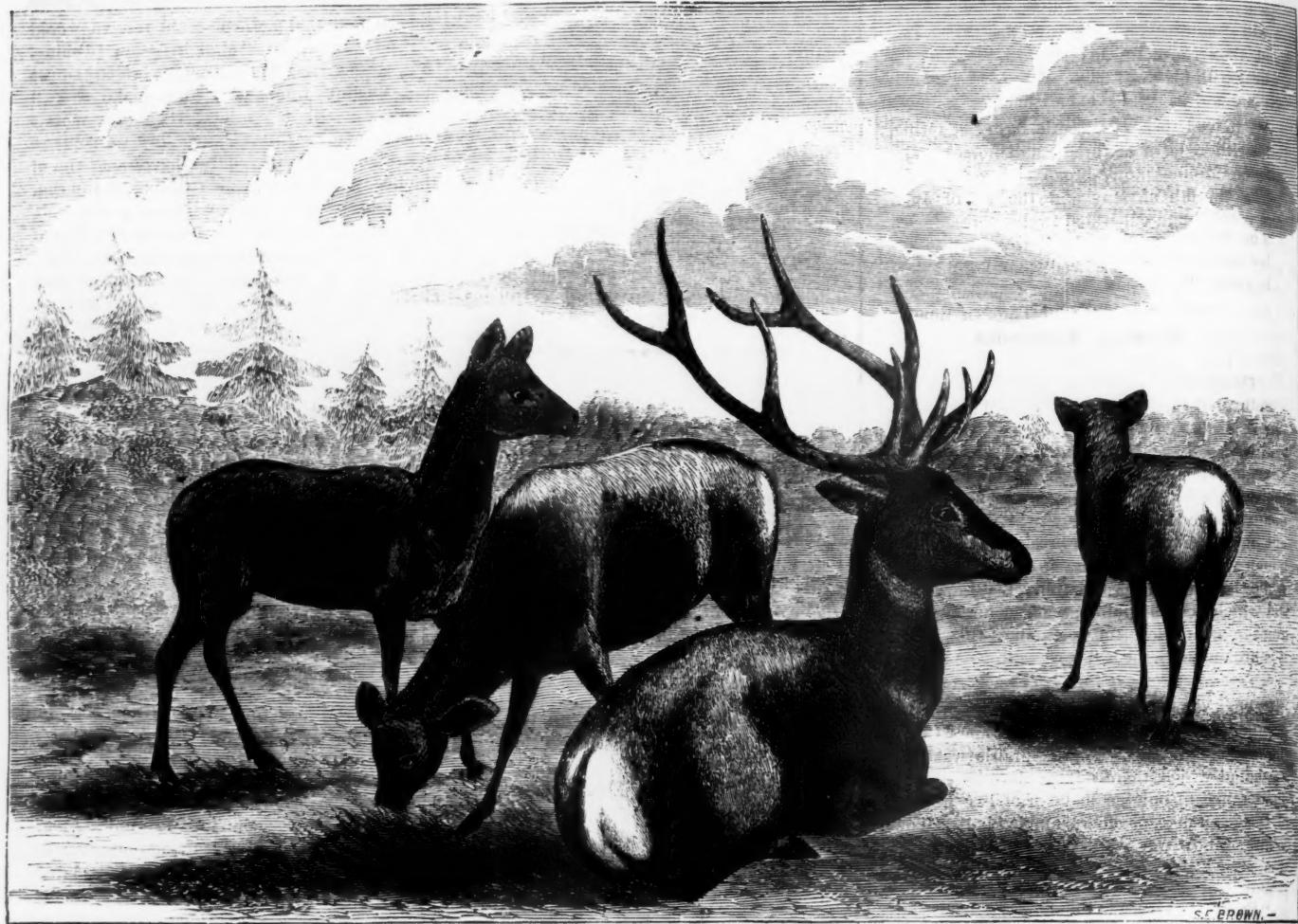
"WHY ARE CARRIAGE WHEELS MADE DISHING?"

"Many farmers and many good mechanics ask *why carriage wheels are made dishing?* Wheels are made dishing that they may endure the greatest strain under all ordinary circumstances, where great strength of wheels is very essential; and also, for the purpose of making small spokes endure as much strain as large and heavier ones would, were the wheel not made dishing. If a wheel were always to bear a load on a track level from side to side, the strongest

possible form that a wheel could receive, would be, what we term "straight"—not dishing. But, since carriages must bear loads along slopes and sideling tracks (and must make sudden turns,) as well as on level roads, the wheels must be made a little dishing. Let us suppose a straight wheel placed resting on one end of the hub, and heavy weights resting on the rim, the spokes would be easily broken at the hub. But, if a dishing wheel of the same strength of timber be placed resting on the large end of the hub, it would obviously sustain a very much heavier weight without injury. Now, when a wheel of a carriage drops into a rut or hole, or when the carriage is rolling along a steep slope, the greatest weight, as well as the greatest strain, will fall upon those wheels that are in the lowest position. If they are made dishing, the spokes will stand in a *bracing position*, and those wheels will endure a great strain; and, unless the tire should burst—as there is a great strain in that direction—the wheel will sustain no injury, although the strain might be sufficient to crush a straight wheel almost instantaneously, when in that position."

Experience in Making up a Club.

Our readers are aware that we seldom publish letters in praise of this journal, though thousands are received yearly. All of them, however, are appreciated, and they stimulate to continued endeavor to deserve such favors. The following from an old correspondent "Mrs. M. J. S." Carroll Co., Ill., contains suggestions widely applicable: "I always dread going out to make up my newspaper and magazine clubs," said a friend the other day. 'People treat me' he continued, 'as if I had come to beg of them, and dole out the money as if it was in charity. Now and then when I meet with an unusually tough case, where there is no paper in the house, and half a dozen youngsters growing up, and the man no reader, I feel like losing patience and saying to him, 'my heathenish friend, do you know that I'm come to do you a good turn, to set your brain half a century ahead of its present quarters? The papers can live without you, but you can't live without them. You exist 'tis true, but a reading man lives more in a month than you do in a year. Do you want to keep your children at the foot of the ladder? to make them 'hewers of wood and drawers of water for others? then keep reading from them and you'll generally accomplish it.' I have sometimes thought that the *Agriculturist* was doing a real missionary work in offering inducements to such people, if only in developing their taste for the beautiful in pictures and flowers. They can't realize what *good reading* means just yet, but they can appreciate good strawberries and pears, fine varieties of cereals and vegetables. Then, perhaps, they have a little pet daughter who is fond of flowers and can be gratified at small expense. In the mean time, the paper introduced into the family, silently works itself into favor. The wife wants the household hints, the children the pictures and puzzles, and before the man is aware he finds himself picking up the paper of an evening to read some article or story about which all the rest of the family have been talking at dinner. A physician (a very near relation) told me that he has been up all night with patients in families where there wasn't as much as an old Almanac to be found in the way of reading, in the house. Tell me, isn't it a missionary work to *tempt* those people into reading by the offer of premiums, etc.?"

GROUP OF E L K. — *Sketched from Nature and engraved for the American Agriculturist.*

We have in America several interesting and remarkable animals of the Deer kind. The largest among them is the *Moose*, or American Elk of the books, which is as large as a horse, having a head of great size, with long upper lip, and broad and immensely heavy horns, a short, thick neck and very long coarse legs. It is a water animal almost, feeding upon lily-pads and the succulent vegetation of the swampy forests of the northern part of the United States and British possessions. Next in size to the moose is the *Wapiti*, commonly but incorrectly called *Elk*—the Stag of America (*Cervus Canadensis*), represented in the above engraving. This beautiful animal closely resembles the stag of Europe, is graceful and stately, bearing powerful antlers which often weigh 25 to 30 pounds, and having many more branches than are represented in the engraving. The horns frequently spread from 4 to 5 feet, and in size they considerably exceed those of the European stag. The prevailing color is greyish in winter, and in summer tawny, of various shades—the ears and front of legs blackish—and there is a large yellowish white spot upon the rump surrounding the short white tail. The hair on the neck of the male below the throat, over a broad space, is long, very dark and tipped with red. This noble animal once common over the northern part of this country, is now seldom found except in scattered families in Maine, Michigan in the lake Superior region, and a few in the Adirondacks, and these are fast disappearing. In the Rocky Mountains and at the head waters of the Missouri and Yellowstone they abound, usually running in family herds of 6 to 13 individuals. The flesh is esteemed, but it is not so delicate as

that of the common deer (*Cervus Virginiana*). It feeds upon a variety of herbage, and the twigs of shrubs and trees. It is not fastidious in its tastes and will get a good living in any forest or low woods. It is easily domesticated, and readily eats the same feed as farm cattle. The hinds become exceedingly gentle, and are handled as easily as cows; but the stags, though comparatively gentle during a part of the year, are wild and even dangerous during the autumn. The hinds go 8 months with young, which are dropped usually during the month of May.

The engraving which we give represents a group of elk (properly called *Wapiti*), of which a large number are now stabled in this city preparatory to being shipped to Italy. They belong to Victor Emanuel, King of Italy, and have been collected by his relative, Count Castiglione, who has been for some time in this country. Several of the finest were raised in a condition of domestication by Mr. Lorenzo Stratton of Cattaraugus County, N. Y., who has bred them for several years with great success. Mr. S. states that he can raise elk for the New York market cheaper than he can beef. Harnessed, they make a pretty fancy team, but he does not value them as draft animals. We understand the number of animals of this kind which it is intended to transport to Italy will reach 150. They will make a fine herd, and a noble addition to the extensive "preserves" of the King.

GARDENING FOR LADIES.—An excellent system for gardening for ladies: Make up your beds early in the morning; sew buttons on your husband's shirts; do not rake up any grievances; protect the young and tender branches of your

family; plant a smile of good temper in your face; and carefully root out all angry feelings, and then you may expect a crop of happiness.

Walks and Paths.

A good walk, one which is dry in wet, and firm in dry weather, one which will not "track" into the house, and which will not allow weeds to grow in it, is something very desirable to every one who lives anywhere except in paved streets. There is no difficulty in making walks to answer all these conditions, if the materials are readily obtainable. Most perfect specimens of walks may be seen in the Central Park, in the city of New York, where abundant means are at hand. An excavation of a foot or more in depth is first made, then a foundation of coarse stones is laid down, this is covered with several inches of stone broken by machinery to about the size of a walnut, and over this a layer of gravel. Where good gravel can be obtained, there is perhaps no better material for a walk. Three or four inches laid upon a proper foundation of stones or brick rubbish, and well rolled, will make an excellent surface. Unfortunately all gravel will not pack, and loose gravel is worse than none at all. The next best thing to gravel is hard-coal ashes, which pack down with the aid of the roller into a firm smooth walk. A path neatly paved with small stones, though not so pleasant to walk upon, is the best that can be had in some places. Over-burnt bricks, such as have been too much heated for building purposes, may be made to serve a good purpose. In many parts of the West, plank is used, but it must be always in straight lines, and

has an artificial look which only the comfort will compensate for. Tan-bark makes a pleasant walk, and its color harmonizes well with the surrounding verdure. Even saw-dust may, on a pinch, be used for the same purpose. Grass walks are an abomination, as they are only passable during a part of the day. The foundation of walks may be made with the bottom concave or convex. The latter is preferable, as it allows the water to pass off at both edges. The surface of the walk ought to be rounded, but not too convex. A center elevation of 1 inch to every five feet of width is usually enough.

Growing Mushrooms.

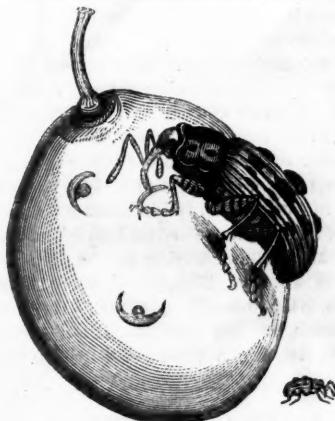
Comparatively little attention is given to the culture of mushrooms in this country. Those who do grow them, meet with a ready sale for their crop, and large quantities are imported preserved in cans. Quite a number of fungi are palatable, but the mushroom, *Agaricus campestris*, is the only one cultivated to any extent. The eatable portion is the reproductive part, (equivalent to the flowers and fruit of other plants.) The plant itself consists of whitish threads, which, under favorable circumstances, run among dung or rich soil, and when the plant acquires sufficient strength it throws up the mushrooms which appear above the surface. These threads (botanically called *mycelium*) can be dried and retain their vitality for a long time; when put into a bed of warm dung they start into growth and increase very rapidly. A block of dung and earth containing an abundance of these threads is called "spawn," and by means of this mushrooms are propagated. Mr. Simpson Gordon, of Vanderbilt Avenue, Staten Island, whose fine specimens were noticed in last month's "Basket," has sent to the *Agriculturist* an account of his method of raising them. The beds may be made in a cellar, under the stage of a greenhouse, or under any shed. Mr. G. collects sufficient quantity of stable manure, shakes out the greater part of the straw, and if the droppings are very wet, allows them to dry a little. The dung is then laid to form a bed about 10 inches thick, beating it down pretty firmly. Holes are then made in the surface of the bed some 6 inches apart, and a piece of spawn about the size of a hen's egg is put into each and slightly covered. The bed is then covered smoothly with earth from the pasture or garden to the depth of 1½ inches. The temperature of the



MUSHROOMS.

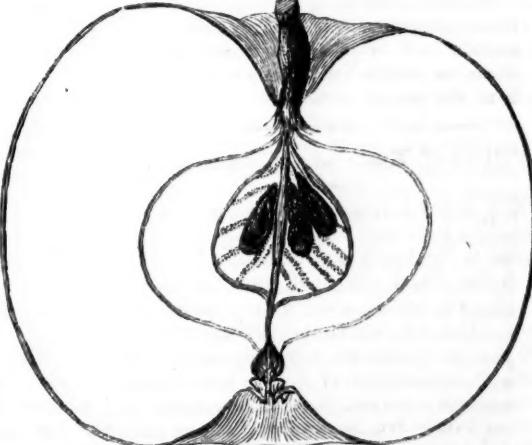
bed is tested from time to time by thrusting a stick into it: allow this to remain in the bed for a while, pull it out and the temperature can be ascertained by feeling of it. When the heat rises to about 75°, the bed should be cooled by making holes with a stick, about a foot apart, which are to be filled up again in two days.

When the temperature of the bed declines to 55°, it should be covered with 2 or 3 inches of the litter shaken out from the manure. If the bed gets dry, remove the litter, and water thoroughly with luke warm water from a watering pot having a fine rose, and then cover it again. If all goes on well the mushrooms will show in 5 or 6 weeks. They appear at first as little round buttons, but rapidly increase in size, and usually reach their full development in 48 hours. Mr. Gordon keeps his beds in a bearing state for 6 months, and makes them at any time of the year that is most convenient. The illustration shows the mushroom in all stages, from the button to the fully developed specimen.



The Curculio or Plum Weevil.

From the frequency with which this insect is spoken of in the agricultural papers, and in pomological discussions, one would suppose that it was familiar enough to every one. Happily there are some places where this pest is as yet unknown, and from thence come requests that the *Agriculturist* would show what the curculio is, in order that it may be recognized upon its first appearance. Though the insect is popularly called 'curculio,' entomologists do not place it in the genus of that name, but they designate it as *Rhynchænus Nenuphar*. It is a small beetle, one-fifth of an inch, or less, in length. The engraving shows one much magnified, and one of the natural size. Its color is dark brown, having a white or yellowish band on its wing-covers with small spots of white, yellow, and black; the wing-covers are also marked by ridges and humps. One of the striking features of the insect, is its long curved proboscis or snout, which bears a pair of antennæ or feelers. This proboscis, when not in use, is kept bent up under its breast.—This weevil is chiefly known for its very injurious attacks upon the plum, it seeming to prefer that fruit and the nectarine to all other places in which to deposit its eggs, though when these are wanting it will avail itself of other fruits and soft vegetable substances. The enlarged insect in the engraving is shown engaged in making upon a young plum, also magnified, those crescent shaped marks which have gained for it the name of "little Turk." These marks are the incisions it makes, by means of its proboscis, to receive its eggs. Having made one of these incisions, the insect turns round and deposits an egg in it, crowds it down, and then goes to another fruit to repeat the operation. Three of these marks are shown in the engraving, but it rarely happens that more than one is made in each plum, and it is unusual for a single plum on a tree to escape the signature of the "Turk." The insect makes its appearance as soon as the fruit is set, and continues to work until the middle of July. The egg soon produces a worm or grub that eats its way towards the center of the fruit, which soon falls to the ground. The grub when grown, leaves the fruit and enters the earth, undergoes its transformation, and reappears in a few weeks as a perfect insect. Thus far the history of the insect is well established by observation; what becomes of the brood thus produced, and where they pass the winter are matters upon which there is a difference of opinion. By some it is thought that the insects hatched out in summer remain concealed under loose bark and in similar places, until the following spring; others hold that they deposit their eggs in the twigs of the pear and other trees, and that the grubs remain there during winter. There is a want of positive knowledge upon the subject. Besides the plum and nectarine, the cherry, apple, and the fruit of the wild thorn are attacked by it; and there is no doubt but it often selects the black knot upon the plum tree, the tender twigs of fruit trees, and the twigs and young fruit of the walnut, as places in which to deposit its eggs. It does its work with such thoroughness that in many localities it is impossible to ripen a single plum. When the insect is alarmed, it gathers up its legs, drops to the ground and feigns death. This peculiarity gives us the only effectual method of combating it, which is to jar the trees every morning and catch the insects upon a sheet and destroy them. All fallen fruit must be gathered and destroyed, or hogs should be turned into the orchard and allowed to consume it.



A Good Apple Little Known—The American Golden Pippin.

Specimens of this excellent apple were brought to us by W. S. Carpenter Esq., from Westchester Co., N. Y., where it is known as the Westchester Golding. On referring to Downing's work it was found to be the same as his American Golden Pippin. It is supposed to have originated in the above named county and is little known elsewhere. Being unwilling that so good a fruit should be confined to a limited locality, we give an engraved outline and a few notes upon its quality with a view to bring it to the notice of fruit-growers elsewhere. The illustration is taken from an average specimen,

but it grows larger and sometimes is longer than this. The shape of the fruit, with its short thick stem and small closed calyx, are sufficiently seen in the engraving, and we add the following characters from Downing: "Skin, fine golden yellow, thinly sprinkled with dots, sometimes slightly netted with thin russet. Flesh yellowish, tender, juicy, almost melting, with a rich refreshing, vinous, aromatic flavor; core rather large. November to February."—This apple is highly valued by those who cultivate it, as a table fruit, for cooking, and as a good keeper. The tree does not come into bearing when young, but later it is very productive. With Mr. Carpenter it gives good crops every year. This is different from the English Gold-*en* Pippin grown in some parts of the country.

A Cheap Fruit Box.

Every raiser of fruit knows that producing the fruit is but one half the work, and that gathering and sending it to market is an equal task. Mr. C. W. Idell, a well-known commission merchant of Washington market, N. Y., gives us the plan of making a very cheap box for marketing fruit, which is adopted by most of his customers. He takes an ordinary starch box, which is 20 inches long, 14 inches wide, and 6 inches deep, removes the top, and nails in a wooden strip, 2 inches wide and $\frac{1}{4}$ inch thick, extending across in the middle from side to side, inserting it so that the top or flat side of the strip comes up on a level with the edge of the box. This answers as a handle and also strengthens the box. A box of this size contains 16 quarts, and is very convenient for huckleberries, currants, cherries, etc. They are preferred by some, of only half the depth, and are made by nailing the cover upon the box and sawing it in two, putting the cross piece in as before. Boxes of this kind are packed in a skeleton case, containing twelve of the small boxes, and six of the large ones. Where ready made starch boxes can not be easily procured, suitable ones can be readily put together out of light stuff of the proper thickness.

Culture of Musk- and Watermelons.

New Jersey is famous for its musk- and watermelons, immense quantities being sent every season to the New York markets. "E. J. K." of Bergen Co., in that State, gives the details of his practice in cultivating watermelons, from which we extract the following: "Our soil is a sandy loam with a sub-stratum of pure sand. In the early part of May the land receives a compost of muck and barn-yard manure at the rate of twenty-five loads to the acre, is then plowed, harrowed three or four times to pulverize it thoroughly, and then marked off so that the hills shall stand 8 feet apart, and exactly opposite to each other, so as to allow of the use of a horse cultivator. Excavations are then made of a depth of 4 to 6 inches, and a foot in diameter, into each of which is put one large forkful of manure or compost, which is thoroughly incorporated with the soil. The holes are then filled up with the earth that was taken from them, which raises the hills 3 or 4 inches higher than the surrounding soil. The seed is planted in the hills half an inch deep, and 8 or 10 to the hill. In about 8 days they will germinate, and the appearance of the plant may be greatly facilitated by gently loosening the earth around them with the finger. In

three weeks from this time, they will have made two rough leaves, when all the plants but three should be pulled out. Should they be attacked by bugs, dust the plants in the morning, while the dew is on them, with wood-ashes or plaster and pepper. If attacked by worms, which eat the young stalks of the plant off near the earth, the only remedy is to search diligently until you find them; they are generally at the root of the plant. The plants should be hoed at least once a week and kept perfectly clean until they begin to put forth runners, when all cultivation should cease. When the runners have reached 4 feet in length, the ends are to be pinched off, and this should be continued throughout the season, to force the strength of the vines into the fruit. By pursuing this course the melons will be of superior excellence as regards size and quality. This system answers equally well for growing nutmeg and citron melons, squashes and cucumbers.... Mr. J. Van Riper, of the same County, and a very successful cultivator of muskmelons for the New-York market, sends a statement of his last year's crop. Early in April he plowed in manure and a dressing of salt hay, harrowed on May 2d, and planted on May 14th, manuring in the hill. From 3½ acres Mr. Van R. gathered 1000 barrels of melons, which brought \$1608.00. Expenses of cultivation, sending to market, commission, etc., \$560.50, leaving a profit of \$1047.50.

Preserving Grapes.

Mr. F. J. Boving of Lancaster, Ohio, has been very successful in preserving grapes during the winter in the following manner: On a clear, dry day he gathers perfectly ripe and sound bunches and lays them carefully in stone jars holding one or two gallons each. The jars are then set in the ground in a trench deep enough to allow their tops to be 8 or 10 inches below the surface. Some boards are then laid over the jars, the trench filled up and the remaining earth ridged up over it. Grapes packed in this way keep perfectly well until the first of March, and he has some yet untouched to test the length of time they can be preserved. Mr. B. exhibited some of his grapes to an extensive grower of the fruit who offered to buy his secret, but he prefers to make it public through the *American Agriculturist*. It is well to make a note of this for reference and experiment next autumn.

The Effects of Cross Fertilization.

In the January *Agriculturist*, there was a short article on this subject which stated that there was some evidence to show that the character of one variety of the strawberry was affected by growing in the vicinity of other sorts. Hiram Walker Esq., of Washington Co., N. Y., who has practised grafting since 1818, writes, that according to his experience the same thing takes place with apples and other fruits, and he thinks the fact that some winter apples do not keep, is not due to their being grafted on stocks of early sorts, but to the impregnation of their flowers with the pollen from early varieties. We regret that we have not room to publish the article of Mr. W. in full, and can only give some of his statements in brief. He says he never knew any difficulty in the keeping of winter fruit, where the orchard was all of one kind, but that when early and late sorts were all together, late fruit was rendered early, and early fruit was made late from cross impreg-

nation. He mentions a tree in Saratoga Co., which was in part grafted with a sweet variety, but the grafts bore sour apples for several years; the grafts of the sweet apple had been put into the lower limbs of a sour apple tree, and as long as the upper limbs of the original tree remained, the sweet grafts bore sour fruit, from the blossoms being impregnated by those on the limbs above them; when the natural limbs were removed then sweet apples were produced. Mr. W. mentions other instances of a similar character which have fallen under his observation. The subject is one not only of scientific interest, but of actual importance to all fruit growers. It is within the observation of every one that a variety of fruit is not the same, even in not widely separated localities. This difference is by some attributed to soil and exposure, by others to the character of the stock upon which the fruit is grafted, and now we have the influence of the pollen of neighboring sorts charged with being the disturbing the cause. Other observations on these points are needed.

Don't forget the Climbers.

In arranging for the adornment of the grounds, by which is meant anything from a park to a small front yard, a fair share of climbers should be introduced. They are useful to make screens to hide unpleasant objects, and are attractive by their own grace and beauty, whether grown upon trellises or pillars, or used to cover the supports to a verandah or porch. Even upon a lattice over the door, or grown directly upon the walls of a stone or brick house, they are always in good taste. It is not too late to put out most of the woody climbers, and we suggest the names of a few desirable ones. Of those cultivated for the beauty of their foliage alone, the Virginia Creeper, one of our native vines, stands pre-eminent. It is found all over the country, and is readily distinguished from any other woody vine by its shining *five parted* leaves. It bears transplanting well, grows rapidly, and attaches itself readily to wood, brick, or stone. It is sometimes incorrectly called American Woodbine, and Ivy. Its botanical name is *Ampelopsis quinquefolia*, and it belongs to the same family as the grape. The European Ivy is an evergreen, every way desirable where it will endure the climate. It does best on a northern or western exposure, and should be grown against a stone or brick wall.—*Celastrus scandens*, (the Wax-work or Climbing Bitter-sweet,) is a pleasing native vine, having inconspicuous flowers, but good foliage and showy fruit in autumn; it is perfectly hardy and grows well wherever it has a chance to twine.—The Chinese Wistaria, (*Wistaria sinensis*), is one of the finest of all climbers, producing large grape-like clusters of purplish flowers. It is perfectly hardy around New-York, but much further north it needs to be removed from the trellis and covered with earth.—Our native Virgin's Bower, (*Clematis Virginiana*), is useful for its foliage, flowers, and fruit, and the European *Clematis Flammula*, has very fragrant flowers, and is fine for the pillars of a verandah.—The curious Dutchman's Pipe, (*Aristolochia Siphon*), found wild west and south, has enormous leaves and most singular flowers.

The various Honeysuckles are all valuable, our native as well as the foreign.—*Lonicera Belgica*, (the Striped or Dutch), *L. Periclymenum*, (the English Woodbine,) and *L. Sinensis*, (the Chinese Honeysuckle,) are among the best of the foreign ones, and *L. sempervirens*, (the Scarlet-Trumpet,) and *L. flava*, (the Yellow Honeysuckle,) are the

best of our native species.—The common Trumpet-creeper, *Tecoma radicans* and *T. grandiflora*, a large flowered Asiatic species, are both valuable and showy. Even the common Hop-vine makes a dense and pleasant green.—Among the annuals none are more valuable than the different Morning-glories, some of the newer sorts of which are really splendid.—The Canary-bird Flower, *Tropaeolum peregrinum*, is very curious and pretty for small trellises, and other *Tropaeolums* or *Nasturtiums*, are very brilliant; these grow readily from seed.—*Maurandia Barclayana*, *Lophospermum scandens*, and *Cobea scandens*, are all fine, and may be grown from seeds in a hotbed, or be had of the florists. In an enumeration of annual climbers, the Sweet Peas should not be omitted. They grow so readily, and are so beautiful and fragrant, that they are general favorites. Sow early, and again later for succession, and have a plenty of them to completely cover the brush upon which they are supported.

Flowers—What Annuals Shall I Plant?

This often asked question becomes each year more difficult to answer, as the Annual Catalogues come to us with their constantly expanding lists. If those who have had little experience with plants, look over the catalogues and make their selections from the descriptions there given, they will very often be disappointed. Flowers must have certain requisites to make them popular, and mere novelty will never satisfy the great mass of cultivators. The fact is that for people in general, not one fourth of the flowers of the seed lists are worth growing—not because they are not good of their kind, but because they are not of a kind which meets the popular idea of a flower. To be satisfactory, an annual must be a free bloomer, and last a long while in bloom; the flowers must be showy individually, or in the mass, and be of good color, or to compensate for a lack of these qualities, they must have a pleasing fragrance. A plant with a tall weedy growth, with here and there a showy flower of short duration, may be interesting and pretty, but will never be popular. The following list gives some of those which can be safely recommended for general culture: Sweet Alyssum; white flowers with honey-like fragrance; once sown will perpetuate itself like a weed. *Antirrhinum* or Snap-Dragon, slow, but satisfactory. Asters; indispensable for late summer and autumn. Many sorts are in the catalogues; Peony-flowered, Ranunculus-flowered, and Giant Emperor, are good, as are many others. Clarkias; all pretty. *Convolvulus minor*; fine. Dianthus or Pinks; the Chinese sorts and *D. Hedewigii* are good. *Gilia*; small, but pretty when grown in masses, and the same may be said of those *Gilia* which in the catalogues are called *Leptosiphons*. *Linum grandiflorum*; fair. *Martynia*; those with colored flowers are showy in a large garden, and the fruit is good for pickles. Marigolds; the bronze and striped sorts are good, when they come true from seed, which is not always. *Mignonette*; grown for fragrance only. *Nemophila* or Love-grove; all are fine in a cool and shady place. *Pansy*; too well known to need comment. *Phlox Drummondii*; this is the showy annual; it gives the best effect in masses; all colors from deep scarlet to white. *Portulacas*; good, especially the double; all colors. *Petunia*; nothing is finer than the best sorts of this. Stock—Ten-Weeks; grown for both beauty and fragrance. *Tropaeolum* or *Nasturtium*; the dwarf sorts are very brilliant, yellow to deep scarlet and bronze.

Whitavia; fine blue, self-sowing. *Zinnia*; coarse in growth and foliage, but with large and showy flowers, the double ones are fine and in great variety of colors. *Candytuft*; white, crimson and purple sorts, are showy in the bed, and fine for bouquets; blooms all the better for cutting. These with some of the "everlasting flowers" noticed in the April *American Agriculturist*, will give a good selection of reliable sorts. The list does not include all the good things, nor is it intended to discourage those who wish from trying novelties, but merely as a guide to those who have no experience.

The Treatment of the Tuberose.

The bulbs are imported from the South of Europe, and are sold at the seed stores at moderate prices. The flowers have the most delightful fragrance, and are highly valued by the bouquet makers. Our season is not long enough for them to flower, if they are planted in ordinary garden soil, and frequent inquiries come to the *Agriculturist* as to the best way of blooming them. We have had fair success by making an excavation and putting in a half bushel or so of stable manure, covering this with a little earth and then planting the bulbs, about a half dozen in a cluster. A more sure way is to grow them in pots altogether. A six inch pot will do very well; it should have good drainage and a rich soil. Rand in his excellent little work on "Flowers for the Parlor and Garden," gives a method somewhat different from the one we have practised, and as it seems to be good, we give the substance of his directions. The pots have charcoal in the bottom for drainage, and over this is placed about four inches of fragments of old dry cow-dung. The pot is then filled with a compost of equal parts of sand, peat, loam, and old hot-bed manure, with a little charcoal dust. One bulb is put in each pot and just covered. The pots are then placed in a hotbed having a covering of tan or sawdust in which to plunge them up to the rim. The foliage soon appears, and when it begins to look "spindling," water is given to dissolve the manure, and at the same time the compost is pressed compactly. When blossoms appear, the plants are removed to a partial shade. The flower stalks should be tied up to neat stakes.

Whatever mode of culture is practised, only sound bulbs should be taken; if any remains of a flower stalk are present, the bulb should be rejected. Remove all offsets at planting, and continue to remove them as they appear during the season, for they weaken the main stalk.

Try Some Sweet Corn.

This may seem uncalled-for advice to many, yet experience has shown us that a large number of farmers depend upon "roasting ears" from the field, for their supply of green corn. All corn in the milky state contains more or less sugar, which turns to starch as the corn ripens. The varieties known as sweet corn have an unusual amount of sugar, so much that it is never all converted into starch, and the grains present a shrivelled appearance unlike that of any other corn. It is nutritious and an excellent article of food in its season, and when dried, forms one of the luxuries of the table in winter. The difficulty of obtaining seed need be no reason why any one should be without this and other nice garden vegetables. Two cents will pay the postage of four ounces of seed to

any part of the country, and the names of a number of reliable seedsmen are to be found among the advertisements in this paper. Sweet corn has run into a number of varieties distinguished by their time of maturity, size of ear and comparative sweetness. The earliest variety is the Extra Early Sugar, which has stalks only about three feet high, and short but very sweet ears. Darling's Early is next in time, and has larger ears of fair quality. Stowell's Evergreen is a late and very sweet sort; it is prolific, and has large kernels. It is excellent both for immediate use and for drying. Perhaps for two garden sorts Darling's Early and Stowell, will give the best satisfaction. The "suckers" which are abundant in some sorts ought not to be removed, as these secure a more perfect fertilization, and consequently well filled out ears. Well manured ground and frequent hoeing will hasten the maturity of the crop.

The Osage Orange from Cuttings.

The Osage Orange is readily propagated from pieces of the root, and nurserymen have multiplied it in this way by starting the cuttings in a propagating house with the aid of bottom heat. John Porter Esq., of Niagara Co., N. Y., writes to the *Agriculturist* that he succeeds perfectly well with root cuttings in the open ground. He cuts the roots into pieces about two or three inches long and plants them horizontally, where the hedge is to stand, covering the pieces entirely. He finds that he gets stronger plants than from seed, and that they are less liable to be thrown out by the frost. Those who have established hedges, can by pruning the roots get a supply of cuttings for increasing their stock of plants. As it is now impossible to get seeds, this plan seems to be well worth trying.

The Deciduous Cypress.

This, though a cone-bearer, is not an evergreen, but, like the Larch, drops its foliage every autumn. Where it will stand the winter, there is scarcely any tree which exceeds it in the beauty of its delicate feathery foliage. Though a native of Virginia and further south, it will endure a much more northern climate. We have seen it in Central Michigan, where it stood as a shrub, having a portion of the new growth killed back every winter. It is worthy of being introduced as an ornamental tree wherever the winter is not too severe. When the seed is sown in rich ground, the young plants make a rapid growth, and it is on this account that especial attention is called to it. In many parts of the West, nurserymen and cultivators generally experience a great difficulty in finding stakes suitable for their purposes. The Deciduous Cypress is just the thing to supply this want. The seed sown in good soil will in two years give strong, straight and durable stakes. The seed may be had of the large dealers, may be sown as directed in February, and will germinate the same year.

NON-BLOOMING FUCHSIAS.—These favorite house plants are frequently too severely taxed. If allowed to bloom continually for too long a period, their strength is exhausted, and at length they cease to flower. In such a case rest is required to restore them. In autumn place them in the cellar; water only enough to keep them alive. In spring prune off all side branches, and upon giving warmth and water, shoots will start from the stem and again produce flowers.



A Poisonous Weed—Stramonium.

The plant here figured is familiar enough to those who live near towns and villages, but it is comparatively unknown in the more newly settled parts of the country. We have more than once seen plants which have accidentally sprung up in the field or garden, cherished as something new and rare. The plant is the *Datura Stramonium* of botanists, and is known as Thorn Apple, Devil's Apple, Apple of Peru, Stink-weed and Jamestown-weed. The first three names refer to the fruit, the next to its odor, and the last, often corrupted into Jimson, is given to it from the fact that, in the early history of Virginia a number of soldiers were poisoned by eating the plant as "greens, at Jamestown, Va." It is a rank growing plant, from 2 to 5 feet high, with smooth, greenish, or sometimes, purple stems. Its coarse foliage, long, funnel-shaped flower and very prickly fruit, are so well represented in the engraving that they need no further description. The flowers are white, and in the variety with purple stems they are tinged with that color. The fruit or seed vessel, when ripe, splits into four parts, and allows the very numerous black, wrinkled seeds to fall out. The plant is an annual, grows with great rapidity, and soon takes possession of the ground if left undisturbed. All parts of the plant are possessed of poisonous properties, and when taken into the system affect it in a similar manner with other narcotic poisons. Children are more liable to be poisoned by it than grown persons, as they are attracted by its showy flowers and are fond of sucking the sweet, honey-like secretion which they contain, and

sometimes swallow the seeds. Great thirst, delirium, drowsiness and a remarkable enlargement of the pupil of the eye are among the symptoms of poisoning by *Stramonium*. In a case of poisoning an emetic should be given at once; mustard, which is always at hand, may be used for this purpose. As accounts come to us every year of the death of a number of children from this plant, for this reason, if for no other, it should be destroyed wherever it makes its appearance. Being an annual the plant may be readily exterminated by mowing.

Box EDGING.—Prepare a bed in some half shaded spot, such as the north side of a fence. The soil should be light, moderately rich, and well worked to a spade's depth. Stretch a garden line along the whole length of the bed, and open a trench from four to six inches deep. Take cuttings from old plants, making them 5 or 6 inches long, and pull off the leaves from

three quarters of the lower end. Set an inch and $\frac{1}{2}$ apart and insert up to leaves; pack the soil firmly around them. If there is no shaded border, set up boards on the sunny sides of the rows.

The Barberry—An Ornamental Shrub. (*Berberis vulgaris*.)

The New Englander, in removing to another portion of the country, misses the Barberry, which, although of European origin, is perfectly naturalized in the New England States, and makes itself quite common along the road sides and in the fence rows. It is a shrub of so much beauty at all seasons of the year, that it is more worthy of being introduced among our ornamental shrubs than many which have already a place there. When left to itself it forms a dense bush, throwing up a few suckers and having its trunk abundantly covered with small limbs; it grows from 5 to 8 feet high. When trained up to a single stem it makes a pretty little tree, and in England has been known to grow to the height of 30 feet. The wood is bright yellow, and in some

countries is used in tanning and dyeing; the leaves have bristly teeth upon their margin and are very acid. The stems are

armed with spines, which singularly enough are leaves developed in an unusual manner. A new shoot has these spines in place of leaves, and very often a regular gradation from sharp spines into ordinary leaves may be traced, as shown in fig. 1. Leaf buds appear in the axils of these spines, and next season produce the proper leaves in short clusters. The flowers, of a fine yellow color, appear in June, in graceful hanging racemes, and are succeeded by clusters of

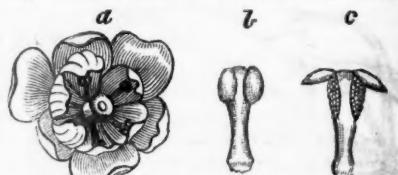


Fig. 2.—FLOWER AND STAMENS.

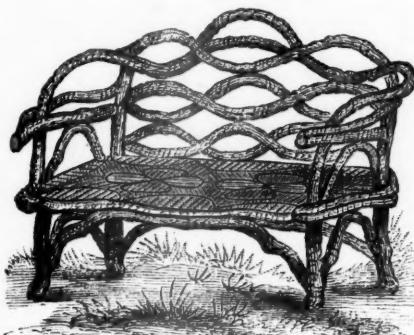
coral red berries. The fruit, flowers, and leaves, are shown in fig. 3, of the natural size; of course the flowers and fruit do not appear together, but they are so represented in the engraving for convenience. Whether in bloom or with its ripe fruit, the Barberry is a most pleasing shrub. The flowers present a peculiarity which is worth noticing. A single flower is shown at *a*, fig. 2, larger than the natural size. The stamens, which will be seen lying back against the petals, if touched near the base with a pin or other hard point, will immediately spring forward until they touch the pistil, and after re-



Fig. 3.—BARBERRY—FULL SIZE.

maining there for some time, move away again. This irritability is most manifest in warm weather. The anthers have an unusual contrivance for letting out the pollen, which in most other anthers is liberated from a slit running lengthwise of them. In the Barberry there are two little plates, or "trap doors," fastened at the top; these lift and allow the pollen to fall out. The stamens are shown in fig. 2, one, *b*, with the appendages closed, and the other, *c*, with them opened.—The fruit, which is very acid, is used for making preserves, syrup and pickles. From its rapid growth and thorny character, it has been recommended as a hedge plant, and judging from the natural hedges we have seen, it would no doubt be a serviceable plant. It is readily raised from seed, and may be propagated from suckers. There are several varieties:

the purple-leaved, yellow, white, and purple fruited; the sweet fruited, and the seedless. Some of the evergreen species, often called *Mahonias*, are among our finest shrubs. A foolish prejudice once attributed rust in wheat to the influence of the barberry—but this has passed away with other groundless superstitions.



A Rustic Seat.

A seat of some kind is needed in the grounds, whether they be extensive or of only moderate dimensions. What is called rustic-work, that is, limbs as nearly as possible in their natural form and condition, seems to harmonize with the surroundings better than anything of a more artificial character. The engraving is taken from a rustic settee presented by D. J. Young Esq., to the Cove (Oyster Bay) Ladies Soldiers' Aid Society, by whom it was sent to the Brooklyn Sanitary Fair, where it was purchased by the Proprietor of the *Agriculturist*. It appears to be made of the wood of the Laurel (*Kalmia latifolia*), and a great deal of ingenuity is displayed in the selection of the crooked limbs and fitting them together. The bottom, which is not shown very distinctly, is curiously inlaid with half round pieces, forming a sort of mosaic work. One who has a fair share of mechanical skill, can readily make work of this kind, and find pleasant occupation for stormy days. The woods of the Laurel and Red Cedar are the kinds most suitable for such work.—This seat will be kept at the *Agriculturist* Office a few weeks, for the inspection of any wishing to construct anything similar, after which it will be taken to the Proprietor's place in Flushing.

THE HOUSEHOLD.

Pests of the Household.

Flies, fleas, roaches, bugs, ants, and moths! Can more annoying pests be named? "What are they made for?" exclaims the vexed housekeeper after "shooing," or hunting, or poisoning, as the case may demand, to expel the unwelcome intruders. For the flies, roaches, and ants, a palliative word may be said. They are most useful scavengers. They dispose of a great amount of waste matter which would otherwise become offensive and in some cases give rise to malaria and disease. Fleas and bugs may be sent as a scourge to keep lazy people lively, or as one suggests, to impel those to scratch themselves who will do nothing else to rid their skin of accumulating exhalations. Moths may serve a good purpose by preventing the hoarding up of unfashionable garments, "to be used at some time," when they might better be bestowed on the unfashionable poor; we can contrive no other plea for their existence, but we can not doubt they answer some good end. But forty good reasons for such nuisances would not reconcile any one to upresistingly suffer their presence

or their attacks. Nor usually is there need of submitting to them. The whole class most abound in uncleanly places. A neglected barn yard, or other depository of decaying matter, will send forth almost Egyptian swarms of flies. All must have noticed how the air is almost darkened with them in the vicinity of slaughter houses. Their fecundity, as is the case with most insects, is so amazing that a few weeks will suffice to populate whole townships with them. A wood-shed or other out house, where chips or rubbish and dust have been allowed to accumulate, is the very paradise of fleas; but like other evil, restless spirits, they are not content to dwell there, and soon they nestle in the carpets, beds and clothing, and make themselves felt under the most aggravating circumstances. Bugs will find shelter in neglected bedsteads; how they get there is sometimes a puzzle, but woe to the sleepers that seek for rest on uncleaned-for couches. And so with the whole family of household pests. They thrive upon neglect; they ask only to be let alone.

First, then, among spring work comes the removal of the citadels of the enemy. Brooms, dusters, scrubbing brushes, white-wash, and persevering housekeepers are to be set vigorously to work, until a stray insect marauder shall feel as much out of place as a guerilla would in a New England school house. The flies are the most difficult to exclude, as they relish the savory fare of the best kept kitchen. Against them make screens for the doors and windows, of wire cloth, or millinet, and keep them in place. Temporary gauze-covered doors for summer use, furnished with springs to ensure their being kept closed, will save a world of fly-specks and vexation. To drive out vermin already in possession is no easy task, but it may be done by perseverance. Mercurial ointment (unguentum) mixed with oil or lard, will prove fatal to refugees in the bedsteads; the Persian Insect Powder will drive roaches reclining from their cracks, and fleas and other insects will shun the scent of oil of wormwood, a few drops of which may be sprinkled among clothing. Having once obtained a victory, guard against inroads of the enemy with all possible vigilance.

"Wines" in the Household.

During a few years past the making of "wine" or fermented drinks from fruit juice, called wine, has been rapidly increasing in this country. The extended culture of grapes, currants, blackberries and other small fruits has given facilities for the manufacture, and in very many families where no intoxicating beverage had been previously allowed, a cask or a few bottles of home-made "wine" are kept for "medicine," for "company," or for an occasional treat. In so far as these articles may be substituted for the mixtures heretofore purchased as wine, when required medicinally, the change is undoubtedly desirable; but the introduction of them into general use as family beverages, is anything but advisable. The province of the household department of the *American Agriculturist* is to make happier homes, and it would not be true to its design without calling attention to this matter which threatens no little injury to domestic peace.

Something that the free use of pure wines would not only give much innocent enjoyment, but possibly tend to the decrease of intemperance. While we believe that those who are addicted to alcoholic stimulants would be less injured by home-made fermented drinks than by the drugged compounds sold at most of the shops, we also have little doubt that the taste for strong drink which holds so many in degrading bondage was *in most cases* acquired at first by indulgence in the so-called "harmless fermented drinks," and as like causes will be followed by like effects, it seems unquestionable that the common use of wines of any kind will be followed by an increase of intemperance. Alcohol is of precisely the same nature and will produce the same vitiation of taste, and disastrous effects upon the system, whether it be extracted from grapes, currants, apples, potatoes, rye, or corn. The only difference is in the quantity taken, and

no one can fix a perfectly safe limit by which to measure the amount which can be habitually drunk without ultimately inciting almost uncontrollable appetite. It is not necessary here to discuss the temperance question; its principles are generally well understood; we only want to fix this fact in the mind of the reader, that alcohol in currant "wine" or any similar compound, is, according to its quantity, just as harmful as alcohol in whiskey. Those who have at heart the well-being of their children will banish from their tables what might prove to them a snare, even if they themselves might find no inconvenience from its occasional or moderate indulgence. Cold water never yet made a drunkard; wine made the first drunken man of whom we have account, and it has made millions of confirmed sots since that day.—All of the so called "Bitters" sold in the country, as medicinal, are chiefly alcohol, and are harmful and dangerous.

Hints on Keeping Provisions.

In the April number of the *Agriculturist*, a brief sketch was given of some of the principal reasons why provisions spoil. Among these were enumerated the instability of the elements of which most of them are composed, the rapidity with which decaying matter communicates its own disorganizing action, and the presence of undue moisture and warmth. The two latter conditions require no little attention during the coming summer months.

Where the atmosphere is very dry, there is comparatively little difficulty in preserving meat or other food. In regions where rain seldom falls during the hot months, as in the Southern Pacific States, and some parts of South America, meat is exposed to the air and allowed to dry for future use, without being spoiled; in this latitude, where moisture is almost always abundant, a few days would make neglected meat highly offensive. As we have no means at ready command whereby this moisture can be expelled, it is necessary to keep provisions at as low a temperature as possible. The cellar is usually the place of deposit for perishable articles, as being the coolest part of the house. It should be made as dry as practicable. The windows should be protected by screens of fine wire or millinet to exclude insects and dust. An occasional sprinkling of lime or whitewash about the cellar floor and walls will in some cases be beneficial by neutralizing the offensive gases arising from decay of minute particles of animal and vegetable matter, which no degree of cleanliness can wholly prevent.

The value of ice to keep provisions at a low temperature and thus preserve them, will soon be appreciated. If there be no ice-house on the premises, and account be made of the inconvenience experienced during this season for want of it, it will usually be decided that it will pay to construct and fill one when the proper time shall come again. Many of the refrigerators, or closets made to contain provisions and ice for their preservation for sale in the market, are defective in not providing for proper circulation of air. An unpleasant smell may be perceived in them, and meats or other articles kept in them acquire an unpleasant musty flavor. A good arrangement is one by which the air in the refrigerator comes in contact with the ice or a cold surface made by ice, deposits moisture, and then, as its temperature is raised by the warmer contents of the vessel, it is again cooled and deposits both its acquired moisture and the effluvium from the substances kept in the safe. In building a new house, an ice closet, or provision safe arranged on this plan, and convenient to the kitchen would be a most desirable addition.

Removing Paint from Silk and Woolen.

Frequent inquiries come to the *Agriculturist* concerning the best manner of removing accidental stains of paint and grease from clothing. Benzine, which is now very cheap, is the best solvent for these things, but it must be used with judgment. Many persons rub the spot over with benzine or other solvent, and think they have done the work.

They only make the spot larger, and consequently set benzine down as useless. One would not think of removing a dark stain from the wristband or the collar of a shirt by wiping it with a cloth wetted with soap suds. The soiling substance must be dissolved and *washed out* and then the article rinsed to remove the filthy water. Benzine must be used in just the same way: there must be a thorough washing and rinsing of the stained spot. To do this, lay the soiled article on an old blanket or other soft cloth, folded several times; pour on enough benzine to wet the spot, and rub it with a piece of sponge or woolen cloth; then pour on some more benzine, so that it will soak down through the article being cleaned, and be taken up by the cloth below. By operating in this way as long as may be thought necessary, the benzine, as soon as it becomes charged with the soiling material, will be taken up by the blanket placed to absorb it, and will, in a few repetitions, completely remove all grease or paint stains. In working with benzine, care should be taken to prevent spreading any more than can be helped, and before drying to wash the edges of the wet portion with a sponge or cloth charged with fresh benzine.

Butter and Cheese in Winter.

Mrs. Almon Benton, Pottawattomie Co., Kansas, writes: "Having noticed an article in the March number of the *Agriculturist* on making butter from 'frozen milk,' I will relate my mode, which if tried, will be found to produce butter quite as easily in winter as summer, and the quality and quantity will also be improved. After the milk is strained, I place on the stove a kettle with some water in it; then place a pan of milk on the kettle and let it remain until the milk is scalding hot; I then remove the pan and set it away for the cream to rise. Pursue the same process till all is scalded. If the milk has *all* been scalded, it matters not whether a part or the whole has been frozen. Mix the cream thoroughly and place by the stove until it is of the right temperature to churn. The butter will all come at the same time, which seldom takes more than 5 or 10 minutes. Much sweeter butter can be made from scalded milk than in the ordinary way, as cream not scalded will sometimes get bitter, if kept long enough to get a churning in cool weather."

"For the benefit of those who make 'double curd cheese,' I would suggest the plan which has proved a *success* with me. When making the first curd, scald as if going to press immediately, but make it quite salt, then set it away until the second curd is ready to salt; put the old and new curds together and thoroughly mix; add more salt if necessary. The reasons for this process are: by scalding (or cooking) the curd, the whey is nearly all separated from it, which, with salt, prevents it souring, and the curd being salted it does not settle in a solid mass, and the necessity of cutting is obviated, which, with the soaking, 'to get the sour out,' always removes a portion of the butter from the curd."

For the *American Agriculturist*.

A Word about Salads.

MR. EDITOR: It has been said that a French family would live well, on what an American family wastes. This I believe to be in a good measure true, and in nothing is French domestic economy shown more than in salads. The American idea of a salad is lettuce dressed with vinegar and sugar. The European's idea, is either vegetables alone, or vegetables and meat dressed with oil, vinegar, pepper and salt. For a purely vegetable salad, lettuce, endive, corn-salad, celery, or chopped cabbage may be taken; this is covered with dressing, sufficient to wet it thoroughly, made in the proportion of two tablespoonsfuls of olive oil to one of good vinegar, with salt and pepper to taste. There is a curious prejudice among Americans against the use of olive oil. Where this exists, butter melted with a gentle heat may be used instead. All fresh

vegetables to be used for salads should be kept in water until served upon the table, in order to have them firm and crisp. Another excellent set of salads may be made from cold meats; cold beef, veal, mutton, or fowl of any kind may be chopped into small pieces and mixed with a share of some green salad, or in fault of that, cold boiled beet, celery, or even potatoes may be used and covered with the above dressing. The chicken and lobster salads are usually dressed with what is called *Mayonnaise*—a sauce made of the yolks of two eggs half a teaspoonful of vinegar, salt and pepper; stir in a tablespoonful of olive oil (or melted butter), adding a few drops at a time, and when the whole is thoroughly incorporated into a rich, cream-like mess, add a tablespoonful of vinegar. The more thoroughly it is stirred, the smoother it will be. This dressing is sometimes varied by the addition of mustard and is preferred by some; it is mixed with the raw yolk in such proportion as may be fancied; then proceed as before directed. Hard-boiled eggs, sliced, may be added to all meat salads. One of my favorite dishes is the genuine potato salad. This is made of cold boiled potatoes, sliced and dressed with oil, vinegar, salt and pepper, as directed above, with the addition of a little onion and parsley chopped fine. Those who like salads will find this an agreeable way to dispose of cold potatoes. It does not cost much to live well if one only knows how, and I hope these hints will be useful to your progressive housekeeping readers.

HURBERT.

More Good Bread.

Mrs. E. M. Palmer, Susquehanna Co., Pa., sends to the *American Agriculturist* the following directions for making good bread: "Boil enough nice white potatoes to thicken one quart of water like thick gruel. Stir $\frac{1}{2}$ teacupful of sugar into it, then dissolve your yeast cake and add all the salt that is necessary for the bread. Let this compound stand for twelve hours; then knead in all the flour that is necessary for the bread. If there be not enough to wet what flour is required, add a little warm water. Be particular to knead it until it will not stick to the board or pan. Let it stand until morning in a moderately warm place. Then mould it into loaves, let it rise a little, and bake 1 to $1\frac{1}{4}$ hours, according to the heat of the oven."

An Educated Housekeeper's Views.

"What are you studying?" asked a young man of a friend who was taking her last year's schooling at an academy.—"The common branches, physiology, chemistry, rhetoric, and natural philosophy," was the reply.—"What on earth will you do with such learning in farmer G.—'s kitchen?" exclaimed he, naming a worthy man to whom she was betrothed. I'm afraid you'll find yourself so well fitted for some other sphere that your education will be a discomfort rather than a source of happiness."—The answer given to this proved that the young lady possessed an educated mind as well as book learning. Said she, "How little you know about housekeeping. You talk as though it were like turning a grindstone, or walking on a treadmill, needing only plenty of muscle; and the less brains to make one uneasy, the better. Why! my mistaken young friend, there's more room for science and thought and skill in managing a household properly, than you'll ever find in your dry goods store, with a bank and a grist-mill thrown in. It requires philosophy to properly make a fire, wash clothes, sweep a room, ventilate an apartment, regulate a clock, and a hundred other matters you never dreamed of. Cooking is an every day application of chemistry. A woman can mix and heat up provisions without knowing any thing about it, but the art; but she can make better bread, butter, roast, broil or boil more nicely, put this and that together in her puddings, pies and cakes with greater success, if she knows the *why* as well as the *how*. Then, what is a poor, broken-down wife good for? Physiology teaches how to keep health

in the family; and then when we have all finished the day's work, having applied science all the way through, we shall want to look over the papers and books which tell what the rest of the world is thinking about; and then don't you see how nicely some little knowledge of *belle lettres* and the laws of mind will come in? A *higher sphere*, indeed! If those who are so anxious to fill a large place, would only take pains to make the place they are now in what it might be, depend upon it there would be more comfort and less complaints, both from themselves and those depending on them. I intend to try to elevate my work to my own level." "Upon my word," said the young man, "you make out a pretty strong case. I never saw the matter in just that light before, and I doubt whether many women view it thus; and that such a good lesson may not be lost, I'll send it to the *American Agriculturist*," and here, Mr. Editor, you have the story.

To Color with Purslane.

A correspondent of the *American Agriculturist*, "M. G.," gives the following directions for coloring with the common weed purslane, (*Portulaca oleracea*). Boil one bushel of the green plant for three hours in a copper or brass vessel. Strain out the liquor and add to it 1 lb. of logwood chips previously soaked, or as much extract of logwood as equals a pound of the chips, and $\frac{3}{4}$ lb. of alum. Wet 3 lbs. of the goods to be dyed, place them in the mixture and expose to moderate heat for three hours; while simmering, occasionally raise the goods out of the dye and expose to the air. The resulting color will be a light bluish purple.

Bills, Bunions, and Carbuncles.

Dr. Hoffman of San Francisco, states in the Medical Press of that city, that Tincture of Iodine made of double the strength given in the formula of the United States Dispensatory, when thoroughly applied to boils, bunions, and carbuncles, will relieve all pain, and shorten the stages of suppuration more than one half. The first application almost entirely relieves the feverish symptoms, with the alternate agues and unpleasant feelings met with in delicate females and other persons. The quantity of matter is also much lessened under this treatment.—As we find this remedy copied by the *Phila. Medical and Surgical Reporter*, we presume it worthy attention.

Hints on Cooking, etc.

Rusks.—Contributed to the *American Agriculturist*, by Miss L. R. Gettier, Montgomery Co., O.: Melt $\frac{1}{2}$ lb. of butter, mix with it $\frac{3}{4}$ of a pint of milk, and flour to make a stiff batter; add 3 tablespoonsfuls of yeast, and set it in a warm place to rise. When light, beat 2 eggs with $\frac{3}{4}$ lb. of rolled sugar, add a teaspoonful of salt, 1 of cinnamon, and flour to make the whole of the above ingredients sufficiently stiff to mould up. Work them into biscuit form, lay them on flat tins, and let them remain until of a spongy lightness before baking in a moderately hot oven.

Soda Biscuit.—By the same contributor: 1 quart of flour, 2 teaspoonsfuls of cream of tartar mixed well in the dry flour; 1 tablespoonful of lard, 1 teaspoonful of soda dissolved in sweet milk enough to make a soft dough with the flour. Bake in a quick oven.

Rice Pudding.—"Peggy" objects to the directions given in March for making rice pudding, that it is too expensive, and also indigestible from the wrong proportion of the ingredients. She says a small $\frac{1}{2}$ teacupful of rice, 2 eggs at most, with a few raisins, a little salt and spice, are abundant for 1 quart of milk, which should be sweetened to the taste. A very palatable article can be made without eggs, by adding $\frac{1}{2}$ more rice. Four eggs and a quart of milk would make a very nice dessert of custard, and thereby save rice, raisins, and flour. The pocket as well as the palate should be consulted in these high-priced times.

Chocolate Custard.—Contributed to the *American Agriculturist*, and pronounced excellent by one of the editors. *Ingredients*: 3 oz. of chocolate (Baker's is good), 3 pints milk, 6 eggs, 4 tablespoons powdered white sugar, and 2 tablespoonsfuls of brown sugar. First prepare a soft custard with the milk, the beaten yolks of six eggs, and the white of one. While this is cooking, grate the chocolate and dissolve by pouring over it a cup of warm water, and then heat it up to the boiling point, and sweeten with brown sugar. When a little cool, mix it with the custard, and flavor with a teaspoonful of extract of vanilla. Put the whole in a suitable dish and pour over the top the remaining whites of the eggs beaten to a stiff froth and sweetened with white sugar. Brown it lightly in a moderate oven. It should be brought to the table as cold as possible.

Cheap Cake.—“Peggy” sends to the *American Agriculturist* the following recipe, which she considers a desirable acquisition at present, as butter and eggs are so costly: “Take 12 ozs. of sweet, fat, salt pork, cut it very fine, and chop until it has the appearance of lard (it can not be chopped too much); put it into a pint cup and pour on boiling water until the cup is full. When cool enough to mix with the hand, add 2 cups sugar, 1 of molasses, 1 tablespoonful of saleratus or soda dissolved in a little water, spice (I prefer cinnamon and nutmeg), $\frac{1}{2}$ lb. raisins, same of currants (very good without fruit), and flour sufficient to make it of the consistence of ordinary stirred cake. By adding a little wine it will keep good three months.”

Sponge Cake.—Contributed to the *American Agriculturist* by “Farmer’s Daughter.” Take 5 eggs, $\frac{1}{2}$ pint of sugar, and 1 pint of flour. Break the eggs into a large meat plate, stir in the sugar, then with a broad knife beat them until no raw egg turns up, which will take about half an hour. Next stir in the flour gently, as beating then would make it tough; flavor to taste, and bake in a round tin basin. This makes a nice loaf for family use.

Loaf Cake.—Contributed to the *American Agriculturist* by Mrs. R. Watson, Hartford Co., Conn.: Mix 1 cup of butter, 4 of flour, 2 eggs, $\frac{1}{2}$ pint yeast, $\frac{1}{2}$ pint milk warmed. Let it rise about two hours, then add 2 cups sugar, nutmeg and raisins, and bake immediately. The above quantity will make two ordinary loaves.

White Mountain Cake.—By the same contributor: “2 eggs, $\frac{1}{2}$ cup of butter, 1 cup of white sugar, $\frac{1}{2}$ cup of sweet milk, $2\frac{1}{2}$ cups of flour, 1 teaspoonful of cream of tartar, and $\frac{1}{2}$ teaspoonful of saleratus.”

Scotch Cakes.—Mix 1 lb. brown sugar, $\frac{1}{2}$ lb. butter, 1 lb. flour, 2 eggs, 1 oz. cinnamon, and a little soda, roll them out as thick as jumbles.

Jelly Cake.—By the same contributor: Mix 1 cup of coffee sugar, $\frac{1}{2}$ cup of butter, $\frac{1}{2}$ cup of milk, 2 cups of flour, 2 eggs, 1 teaspoonful extract of lemon or almond, $\frac{1}{2}$ teaspoonful of soda, and 1 teaspoonful of cream of tartar. Bake in two long pie tins. When done cut each cake once in two, spread jelly on three parts, leaving the fourth for the top of the cake. For the table, cut in finger lengths, $\frac{1}{2}$ of an inch thick.

Madison Cake.—Mix 1 lb. of butter, 2 lbs. sugar, 2 lbs. of flour, 1 lb. raisins, 1 lb. of currants, 1 pint cream, 7 eggs, 1 teaspoonful cinnamon, 1 nutmeg, 25 drops oil of lemon, 1 teaspoonful soda, 2 cream tartar.

Ginger Snaps.—Contributed to the *American Agriculturist* by “H. H. E.”, Stephenson’s Mills, Pa.: Mix 1 cup of molasses, $\frac{1}{2}$ cup of sugar, $\frac{1}{2}$ cup of butter, $\frac{1}{2}$ cup of milk, 1 teaspoonful of soda, and 1 heaping tablespoon of ginger. Add flour till stiff enough to roll thin; bake in moderate oven.

Ginger Crackers.—Contributed to the *American Agriculturist* by Mary M. Hepburn, Lycoming Co., Pa. Mix 3 lbs. flour, 1 lb. sugar, 1 lb. butter, 1 pt. molasses, 2 oz. ginger and 1 oz. each of cinnamon and cloves. Roll the dough thin, and bake in a quick oven.

BOYS & GIRLS' COLUMNS.

The Value of Neatness.

A wealthy merchant in one of our cities relates that he owes his fortune to the habit of neatness while a boy, taught him by his good mother. She was a poor widow, and he the eldest of three children. One day, when all their food was gone, and they knew not where to procure more, they saw an advertisement for a boy in a store. The lad applied for the place, and was told that another boy had come before him, whom the merchant thought of engaging; but after a little conversation the gentleman changed his mind, and employed the last applicant. He was first errand boy, then clerk, next partner, and finally upon the death of his first employer, the whole business was left to him. After the lad had been in service a few years the gentleman told him the reason why he had been engaged in preference to the other boy. It was because he was more neat and tidy in his appearance. His clothes were patched but clean, his hair was combed, his hands and face unsmeared, and his shoes properly blacked. Now one can not always keep entirely tidy when at some kinds of work, but it is possible to form habits of neatness, so that when working hours are over, water and brushes shall be regularly thought of and used. And even if it should not lead to a fortune in money, it will bring no small wealth in personal health, comfort, and agreeableness to one’s associates. This habit must be formed in youth or it will seldom be attained afterward.

The Game of Double Acrostics.

The manner of conducting this amusement will be best understood by the following example: One of the company describes two words (called the *principal* words) thus: The *first* is a color usually observed in anger. The *second* embraces all nations of the world. A word beginning with the first letter of the first principal word, and ending with the first letter of the second principal word, expresses a quantity of paper. The second letters of the principal words begin and end a word which all are striving to obtain. The third letters of the principal words are the first and last of what debtors expect and dread. The company then try from these hints to make out all the words. It will be noticed that the principal words must each contain the same number of letters, otherwise the acrostics could not be made. The answer to the above is: *Principal words*: “Red” “Men.”

ReAM is a quantity of paper.
Eas E is sought for by all.
D u N is expected by debtors.

The above arrangement shows why the game is called “Double Acrostic”; the first and last letters of these three words spell the two principal words. After the above explanation, the following arrangement of another question, which is the plan usually adopted in proposing an acrostic, will be easily understood by the reader.

Question.

First. The condition of Babylon. First; Fallen. Second. Visitors not often seen. Second; Angels.

1. A preparation of grain.
2. A butterfly chased by men.
3. A too prevalent vice.
4. The sum of all commandments.
5. A painter’s implement.
6. Abundant among Yankees.
7. Farina.
8. Ambition.
9. Lyin G.
10. Love.
11. Ease.
12. Nation S.

We will propose the following, on which our young friends, (and older ones too,) may exercise their ingenuity. First Word. A President of the United States.

Second Word. A Consequence of his acts.

1. What every baker sells.
2. Lately introduced into Mexico.
3. Every lady’s companion.
4. What makes law necessary.
5. A drowning man.
6. Useful in hunting horses.
7. A pretty flower and good pickle.

With a little thought, such puzzles can be easily made, and their construction and solution will furnish pleasant amusement to a social party.

Answers to Problems and Puzzles.

The following are the answers to the *Puzzles* Nos. 77, 78, and 79, in April No., page 119; No. 77. *Illustrated Rebus*: Turnip ray eve two w hare yy’s men walk in safe p laces—or Turn I pray you to where wise men walk in safe places. No. 78. *Pictorial Proverb*.—“Never too late to mend.” No. 79. *Puzzling Dots*.—Remove 2 from each inside square, and replace one in each of the corner squares. The following have sent correct answers up to April 5th: Winfield S. Bush, 72; “B. K. N.”, 72, 76; L. O. Gay, 72; Herman J. Berg, Jr., 76; O. Kirchner, 72; “X,” 72, 76; G. Frank Yarnall, 76; L. A. Cole, 72, 76; G. A. Blake, 76; J. Albert Evans, 73, 74, 75, 76; “Antoine,” 72, 75; J. T. Cox, 72, 76; A. S. Littleton, 72; G. W. Taylor, 76; Fred E. Parker, 76; James Huff-

man, 76; George S. Jeffery, 76; M. O. Southworth, 72; E. P. Harnish, 76; James Neal, 72; “Josiah,” 76; E. M. Dunning, 75, 76; Lucy R. Weeks, 73, 74, 75; George F. Weeks, 73, 76; M. D. Shields, 76; Mattie M. Humilton, 76; H. H. Stryker, 73, 74, 76; Cornelius Hoagland, Jr., 73, 74, 76; G. G. Crowley, 72, 73, 74, 75, 76; Dewitt C. Challis, 73, 74, 75, 76; Horace Andrews Jr., 73; W. H. Andrews, 76; “J. R. A.”, 74, 88; Newton Miller, 76; Silas G. Patterson, 72; B. F. Wilcox, 72, 76; Marshall F. Rinehart, 72; Marcus Thacher, 75; S. E. Gilfillan, 76; Zenos Condit, 76; James Fisher, 79; John Waybright, 77, 79; Wm. J. Newton, 73, 76; S. J. M. Bear, 77; Arthur Shriver, 78, 79; Granville J. Simpson, 76; “Brooklynite,” 79; Henry H. Osgood, 72, 76; Thomas C. Waters, 78, 79; James C. Gerow, 72, 76; “Julia,” 77, 78; C. L. Short, 78; C. L. Essig, 79; Melvin L. Casler, 79; W. S. Scott, 79; J. G. McCree, 79; William Kimberly, 79; Georgia A. Draper, 78; “B. C. P.”, 77, 79; J. C. Cooper, 79; Danske Bedinger, 78; C. H. St. John, 79; Ellen Buchanan, 79; Robert G. Weeks and Lucy R. Weeks, 77, 78; Chas. S. Hogan, 79; Hugo Otto, 79; Theresa Knapp, 79; Genette Bacon, 77; “O. K.,” 78; Amos Walton (not first), 79; C. F. Erhard, 79; R. G. Lear, 79; Minerva J. Ramp, 79; Eddie Sheldon, 79; Willie English, 79; E. M. Egbert, 79; “A. B. C.”, 79; Samuel W. House, 79; “J. L. F.”, 77, 79; Wm. J. Smith, 79; George L. Crowley, 77, 78, 79; James F. McKee, 77, 79; Winfield S. Bush, 79; James P. Prall, 77; Elias S. Ward, 78; Edwin Ludlow, 79; A. G. Tillinghast, 78, 79; A. H. Rittenhouse, 79; William B. Williams, 79; John Cotten, 79; John H. Swartz, 79; N. H. Miller, 78; L. Gildwell, 79; Gilbert Darrow, 79; B. Fawcett, 77, 78, 79.

New Puzzles to be Answered.

No. 80. *Illustrated Rebus*.—Suitable for every one



No. 81. *Word Puzzle*.—What great crime cut in tw will give a very common and innocent enjoyment

No. 82. *Pictorial Proverb*, expressing good advice.



No. 83. *Geographical Question*.—Suggested to the *American Agriculturist* by H. Martin Kellogg, Worcester, Mass. The name of one of the Presidents of the United States has been given to towns in 26 States, and to counties in 20 States; what is the name, and in what states are the counties and towns found?

No. 84. *Illustrated Rebus*.—A historical fact.



No. 85. *A Puzzling Dinner*.—The meats and vegetables were: 1. The Sultan’s dominions; 2. A lean wife roasted; 3. A tailor’s implement; 4. What makes people cry; 5. The 16th letter repeated; 6. Bright colors; 7. A river and a drum-beat. The dessert consisted of mixed types, made of a fowl funeral, a running stream, dried married couples, and relations of a water engine. What common names would you give these strange compounds?



SAFE AT HOME AGAIN.—Engraved for the American Agriculturist.

Three Ways to be Happy.

The little wanderer is safe at home again, thanks to the kind friends who found her in the woods, and the whole party are happy. The little girl looks very serious, as though she would say "I will never do so again," but nevertheless she has the feeling of *being right again*, which is always pleasant. The mother is full of joy at the return of her missing child. The strangers are happy because they have done a kindness to this poor family. Here then are shown three kinds of enjoyment, that of becoming good, of receiving good, and of doing good. Whoever would have happiness must find it in one of these three ways. The first, becoming good, and the last, doing good, will be sure to bring the other, receiving good. Whoever will learn this short lesson by heart and practice upon it, will have a more valuable possession than the "philosopher's stone," which people once believed would turn every thing into gold, and every wise girl and boy who reads the *Agriculturist* will at once set about a task which promises such great results.

Something About Your Name.

James, George, Susan, Mary, Willie, Lucy,—but we can't call a thousandth part of the roll of the *Agriculturist* girls and boys—here is something for each of you to think and learn about. What does your name mean? Why was it given to you? Thousands answer to the last question, "I was named after my father or mother, uncle or aunt, or other relative. They had their names from some one before them, and so back until there must have been a time when the name was first used to designate an individual. Thus *Adam* means *red color*, and the name was given to the first man from his ruddiness of complexion. *Eve* signifies *life*; a very appropriate name for the mother of the human race. *John* is said to be derived from the Hebrew word *Johanan*, meaning "the grace of God." If so, the beloved disciple had a name in perfect accordance with his character. It will be interesting for every one to know the history of his or her name,

the meaning of the word, and the distinguished persons who have borne it. Such information will be all the more valuable if each will try to acquire the virtues and shun the vices of his name-sake, and when the name signifies something good or noble, if an effort be made to make the character equal to it; or if your name has not a good signification, then try to make it honorable, and to have it possess a value to those who come after you.

A Parrot in Court.

An English paper tells a story of a parrot which was claimed by two parties, each of whom endeavored to prove his ownership. Finally the bird was brought into court, and the real owner, from whom she had been stolen, made the bird whistle several tunes, and at the end of the performance, placed his head near the cage and asked the parrot to kiss him, which she did very affectionately to the best of her ability. "That's no proof," exclaimed the other claimant, "she will do that for any body," and he immediately presented his own face to the bird, for a like salutation. But instead of a kiss, Poll gave a sharp snap, caught him by the lip, and held on, screaming with all her might, while the bystanders could not restrain laughter at seeing the thief thus convicted, and punished by the knowing bird. She was forthwith restored to her owner—on her own testimony.

The Mysterious Quarter of Mutton.

The following incident, said to have occurred "Out West," proves that it is not always safe to judge from appearances. In a district adjoining a large forest, wolves were so plenty that it was almost impossible to keep sheep, and only now and then a "cosset" was raised as a pet. A good Deacon had reared one with much trouble, and as it had become rather troublesome, he killed it. Mutton was a great treat in those parts, so he reserved one quarter for himself, one for the minister, and divided the remainder into small portions and distributed it among his few neighbors. The minister's

portion was placed in an out-building for safe keeping until the next day, but in the morning it was nowhere to be found; some one had stolen it, and the peit in which it was wrapped. Greatly disappointed, the Deacon and his wife resolved to make some amends for the loss to the minister, and therefore selected their nicest cheese, placed it in a covered basket, and sent it with a polite note by their two boys. It was berrying time, and the boys made frequent stops both going and coming. When they returned, great was the surprise of the Deacon to find a note from the minister cordially thanking him for the present of a *quarter of mutton*, and asking him to accept the gift contained in the basket as an expression of his regard. "Mutton? Mutton?" said the Deacon, "he was probably thinking of the sheep I killed yesterday, when he wrote the note; but let us examine the basket." He opened it and there was a flat stone! The Deacon was a good man, but this aroused his indignation, and he could not refrain from speaking harshly of such treatment from one he had always considered his friend. By the advice of his wife, in the afternoon he called on the minister for an explanation, taking with him a small cut of mutton for a peace offering. The minister and his wife had just gone out, and as the Deacon was talking with their little girl, he happened to look into an open pantry, and there spied the very quarter of mutton stolen from him the night previous—he knew it by the marks he had made in dressing it. Without another word he seized it, and went home in great wrath, convinced that the minister was a thief, and determined to have nothing more to do with him. The minister on his return was equally indignant at the conduct of the Deacon, but prudently resolved to say nothing of the matter. For three weeks after, the Deacon and his family were absent from church. Every body wondered why, but he would make no explanations, neither would the minister. Finally a meeting of the church members was called, with a determination to have the strange actions of the Deacon explained, and he resolved to let the whole story out. He told the circumstances, and expressed great grief at what he considered the shameful conduct of the minister. The latter gentleman then made his statement. He said that the Deacon's boys had brought him a *quarter of mutton* in a basket, and that in return he had placed there a neat Family Bible. Every body now looked at his neighbor, wondering what it could mean; some thought them both crazy, others thought of witchcraft. All was still as the grave for some minutes, when there arose a man formerly known as Wicked Will, who had lately reformed and joined the church. "Brethren," said he in a trembling voice, "I stole the quarter of mutton. On my way home in the night I was chased by wolves, and climbed a tree for safety, where I had to stay until they went away in the morning. Being afraid to take the meat home by daylight, I hid it in the woods, but to make sure of it, I stayed near the place, intending to carry it away early in the evening. While there, the Deacon's boys came along, and from my hiding place I heard them speaking of what had happened. I also found that it was too warm for the meat to keep through the day, and so when they were busy gathering berries, I slipped the cheese out of the basket, and put in the meat. When they returned, they stopped again, and hearing them speak of a present for the Deacon, I examined the basket, and finding a nice package there, I thought it might be valuable, so I took it out, and put in the stone. But that is not all. On reaching home safely, I opened the package to examine my prize. While carelessly turning over the leaves, my eye fell upon the passage 'Thou shalt not steal,' and from that moment I found no peace until I became a changed man."—Thus the whole mystery was solved, and the Deacon and the Minister were not only reconciled, but they both heartily rejoiced together that their temporary loss of peace had resulted in so great a good as the reformation of Wicked Will.

The Slave and the Shark.

Some years ago an English vessel on the lookout for slave ships gave chase to a suspicious looking craft. While the pursuit was going on, it was noticed that something was thrown overboard from the supposed slave. She was soon captured and taken into port for trial, but no certain evidence could be produced against her; the ship's papers, that is, the writings which every vessel is by law obliged to carry, showing her character and where she is bound, could not be found; they had evidently been thrown into the sea during the chase. The slave's captain was in high glee, both at his expected escape, and also with the idea of recovering damages for the seizure and detention of his vessel. But before the trial ended, a vessel came into the same port which had followed closely in the track of the chase. Her crew had caught a shark, and in its stomach found a tin box which contained the missing ship's papers, and on this evidence the slave was condemned. The jaws of the shark with the tin box placed inside are preserved in the Naval Museum in England.

Advertisements

Advertisements, to be sure of insertion, must be received BEFORE the 10th of the preceding month.

N. B.—No Advertisement of Patent Medicines or secret remedies desired. Parties unknown to the Editors personally or by reputation, are requested to furnish good references. We desire to be sure that advertisers will do what they promise to do. By living up to these requirements, we aim to make the advertising pages valuable not only to the readers, but to the advertisers themselves.

TERMS—(cash before insertion):

FOR THE ENGLISH EDITION ONLY. (14 lines in an inch). Seventy-five cents per line of space, for each insertion. One half column (74 lines), \$50 each insertion. One whole column (148 lines), \$95 each insertion. Business Notices, One Dollar per line. German Edition, Ten cents per line; \$10 per column.

WANTED.—A COMPETENT GARDENER for Vegetables and Fruit, Grapes, &c. An unmarried German preferred. Good recommendations indispensable. Address WM. H. PRINCE, M.D., Northampton, Mass.

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See pages 71 and 93 March *Agriculturist*.

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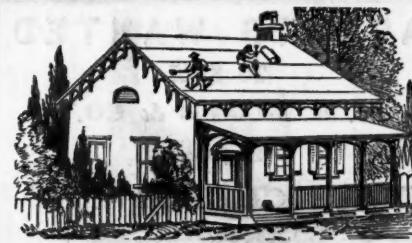
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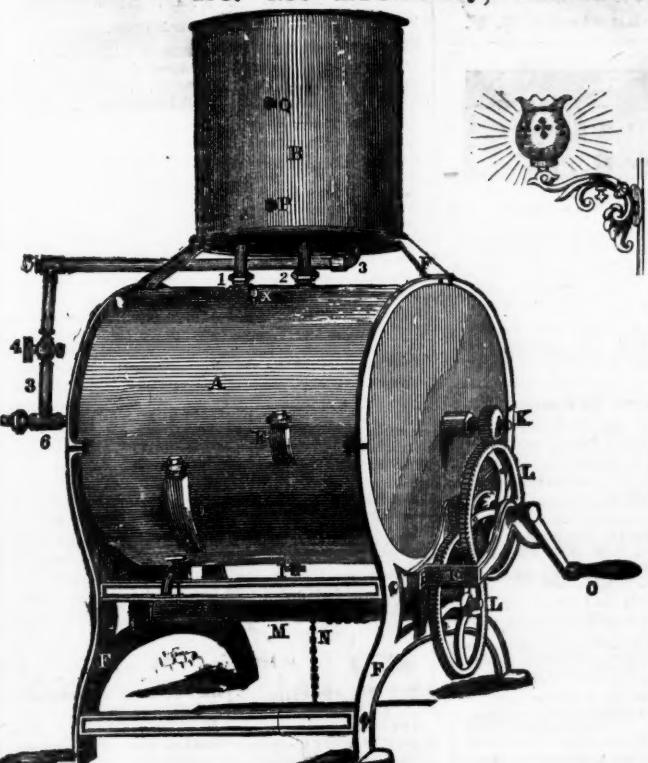
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It may be attached to pipes for ordinary gas, and is a perfectly reliable Machine for producing Gas for country dwellings, Hotels, Stores, Churches, Factories, or any buildings where light is required. It is perfectly Automatic in its operation producing gas only when and as fast as it is consumed. Machines are built to supply from five to one hundred burners, and ranging in price from \$100 to \$1,000. Each Machine is warranted to work perfectly as represented. Circulars descriptive of the Machine, and Certificates from a large number of most reliable persons who have actually used it will be furnished on application to us, and persons are invited to call and see it in operation at our store.

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The AGRICULTURIST for February, 1864, page 37, has the following:

"War Maps."—We have received from H. H. Lloyd & Co., several very good maps, among them one which shows at a glance, and in an interesting form, the progress of the war, the original and the present territory occupied by the rebels, the battle fields, etc. Note that this is H. H. Lloyd & Co., 81 John-st., a prompt and responsible House, we have every reason to believe."

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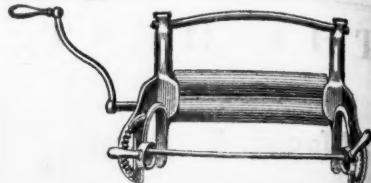
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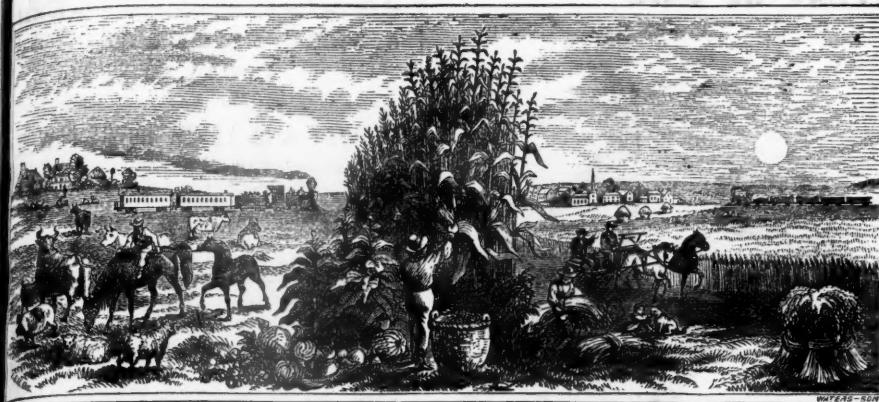
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Extending 380 miles from North to South, has all the diversity of climate to be found between Massachusetts and Virginia, and varieties of soil adapted to the products of New England and those of the Middle States. The black soil in the central portion of the State is the wheat known, and produces the finest corn, wheat, sorghum and hay, which latter crop, during the past year, has been highly remunerative. The seedling of these prairie lands to tame grasses, for pasture, offers to farmers with capital the most profitable results. The smaller prairies interspersed with timber, in the more southern portion of the State, produce the best of winter wheat, tobacco, flax, hemp and fruit. The lands still further South are heavily timbered, and here the raising of fruit, tobacco, cotton and the manufacture of lumber, yield large returns. The health of Illinois is hardly surpassed by any State in the Union.

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In the list of corn and wheat producing States, Illinois stands pre-eminently first. Its advantages for raising cattle and hogs are well known to require comment here. For sheep raising, the lands in every part of the State are well adapted, and Illinois can now boast of many of the largest flocks in the country. No branch in industry offers greater inducements for investment.

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Forty acres at \$10 per acre on long credit, interest at six per cent., payable annually in advance; the principal in four, five, six, and seven years.

INTEREST. **PRINCIPAL.**

Cash payment.	\$24.	INTEREST.	PRINCIPAL.
Payment in one year.	24.00		
" two years.	24.00		
" three "	24.00		
" four "	18.00	\$100.00	
" five "	12.00	100.00	
" six "	6.00	100.00	
" seven "	0.00	100.00	

The same farm may be purchased for \$320 in cash.

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For sale, a beautiful farm of 160 acres, situated near the Fox River in the town of Oswego, Kendall Co., Illinois, 3½ miles from the station on the Chicago, Burlington and Quincy R. R., 2½ from the village of Oswego, and 6 from the city of Aurora. The improvements are all permanent and particularly well adapted to stock purposes. A well furnished house, and large barn with stabling for 50 cattle. A thriving Apple orchard, Peach, Plum, Pear and Cherry trees, both dwarf and standard; also all the small fruits with a good variety of grapes, most of the above in bearing. A fine Durham stock, horses, tools and household furniture will be sold with the farm if desired. For further particulars address the subscriber at Oswego, Ill.

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As Surveyors we have an intimate knowledge of the lands of this State. Enquiries by letter will be promptly answered.

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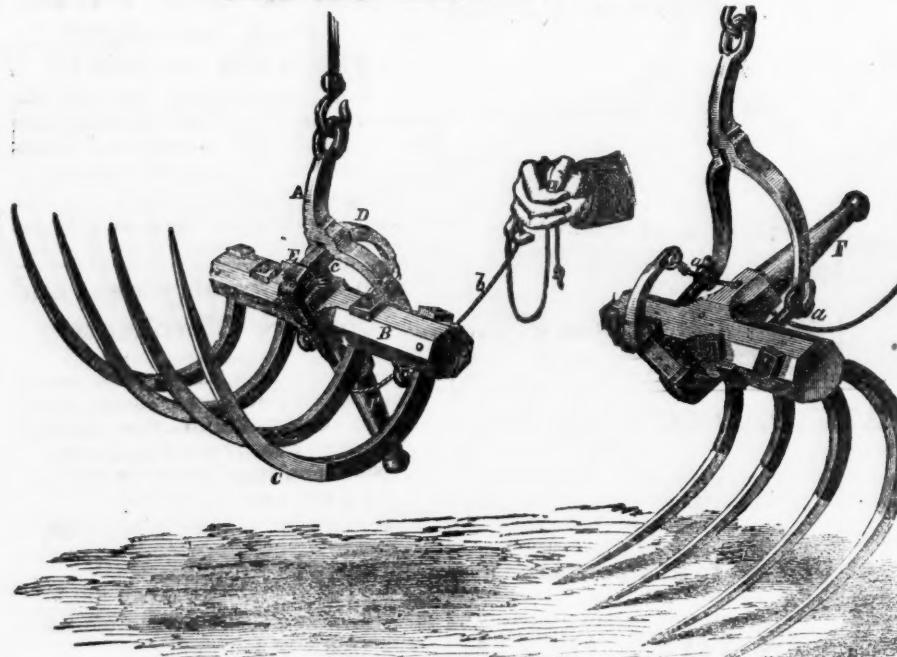
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It pitches into a window from the outside, carrying the hay eight feet inside. It pitches into mows, over and under purlin, beams, and into any place where a hand fork will work. It stacks Hay and Straw in the field, making high and long ricks. Be sure and get the very best Fork, one that will not break and get out of repair. Do not buy an inferior article simply because it is cheap. Our Fork is not an untried experiment, but has stood the severest test during the past season, and received the highest commendations from those that have used them. They are made in the most substantial manner so as to prevent all possibility of getting out of repair. Price of Fork and Pulleys, \$14.00. Circulars sent free. Persons sending us the price of the Fork, will receive the Fork free of expense. Orders for Forks in the State of New-York and the East, address R. J. RUNDELL & BRO., Hudson, N. Y., and all west of N. Y., address R. J. RUNDELL & BRO., Proprietors & Manufacturers, P. O. Box 3931 Chicago, Ill. Orders for Fork in the Counties of Westchester, Putnam, Dutchess, Columbia, Rensselaer, Washington, and Saratoga, GIFFORD BROS., Hudson, N. Y.

Beardsley's Premium Hay Elevator.

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BULLARD'S IMPROVED PATENT HAY TEDDER,



Or Machine for Spreading and Turning Hay. The subscriber having purchased the exclusive right for manufacturing and selling (for the State of New-York)

Bullard's Improved Hay Tedder,

now proposes to furnish the Farmers to the extent of his ability, which must necessarily be limited the coming year, owing to the difficulty of obtaining good and competent mechanics.

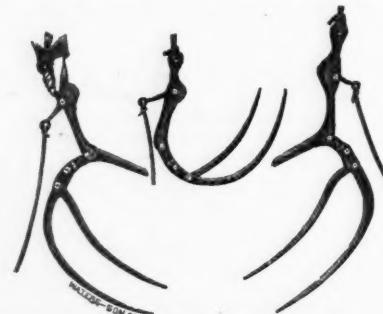
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It is so balanced that it will take up a greater or lesser amount of hay without dribbling it from the points of the tines, which is the case in almost every other fork in use.

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It is made of Iron and Steel in the most durable manner, having no wooden head to split and allow the teeth to get loose.

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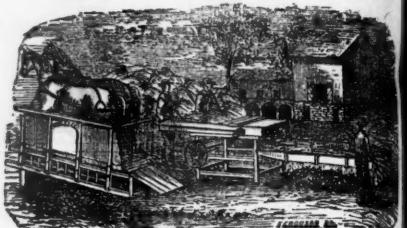
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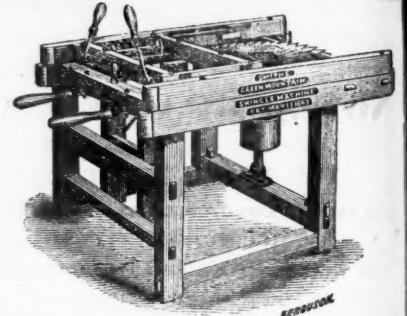
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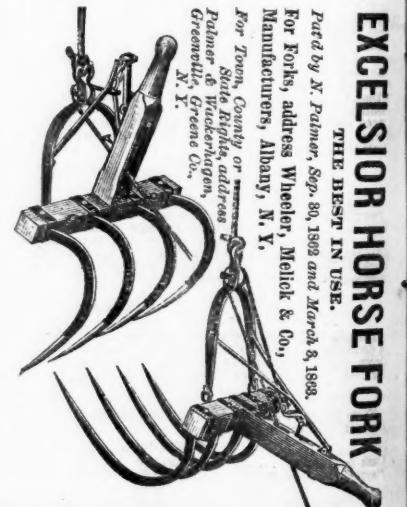
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THE AMERICAN BELL COMPANY,
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Are the only manufacturers of this description of Bell, either in this country or in Europe—the combining of certain metals, and the process of manufacturing the same being the discovery of the President of the Company. These Bells we can command with great confidence to the public, by their cheapness and quality of tone. We furnish a 50 lb. bell with all the necessary appointments—including Harrison's patented Self-acting Rotary, for \$125, and one of 1000 lbs. with like appointments, for \$244, the price for the Bells being 20c. per pound, and that of the hanging, of the first, \$25, and those of the latter \$44. Our circulars containing full details, will be forwarded free of charge to all parties desiring the same.

EXCELSIOR HORSE FORK
THE BEST IN USE.

**TO PLANTERS
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offer their fine stock of

**Apples, Plums, Cherries,
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Peaches on Plum Stock,**

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FRUIT TREES

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Vines for House Culture.

1 year, \$20 per 100—2 years, \$30 per 100.

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Flowering Shrubs in great variety.

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**Embracing many NEW and BEAUTIFUL
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NANSEMOND SWEET POTATO PLANTS.—Oldest quality, during May and June. Put up to carry safely long distances. Price, 300 \$1; 1,000 \$2 50; 5,000 \$11; 10,000 \$20. This variety is hardy and prolific, being profitably grown 44 degrees north. Send for our circular, containing instructions in cultivation and experience of those growing them. Address MURRAY & CO., Foster's Crossings, Warren Co., Ohio.

THE NEW SQUASH!

The Turban or Turk's Head Squash.

Since I introduced the Hubbard as the best of all **Winter** squashes, I have been seeking for the public a first class squash for **Fall** use. After spending six years in carefully testing many new varieties, I am satisfied that the Turban is decidedly the best of all squashes for Fall use. It is very dry, very fine grained and rich flavored (the Hubbard is little or no flavor in the Fall), and is the thickest, sweetest and heaviest in proportion to its size of all squashes. It grows to a good size for the table or for pies. In competition with all other varieties my Turban received the prize for quality next to the Hubbard at the late great exhibition at the rooms of the American Agriculturist.—Recommendations from Seedsmen, Editors of Agricultural papers, Provision Dealers and Farmers, with a fine engraving of the squash will be found in my Circular, which I shall forward gratis, to all my former customers; hence they need not write me for it. To all others it will be sent gratis on application.

Price per package of 50 seed—25 cts.; five packages for \$1. JAMES J. H. GREGORY,
Marblehead, Mass.

Flower Seeds, Delaware Grape

VINES, flowering plants, &c., in variety. Sent by mail. Catalogues gratis. Address H. B. LUM, Sandusky, Ohio.

Russell's Prolific Strawberry.

Visitors to the *Agriculturist* office will remember the Splendid Show of this unequalled Fruit by me last season. Having a fine stock, I offer first quality plants at \$1 per doz., \$5 per 100. Also, Triomphe de Gand at 35c. per doz., \$1 per 100, \$6 per 1000. 15c. per doz. extra by mail.

EDWIN MARSHALL, Poughkeepsie, N. Y.

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Having a good stock of plants left of this excellent Strawberry, I offer them at 80 cents per dozen by mail, \$4.00 per 100 by Express. Carefully packed, and safe delivery guaranteed. Catalogues and Circulars gratis. Address

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Choice Melons !

I offer to the public the following varieties of fine Melons, many of which are new and rare.

New White Japan (new, from Japan); Ward's Nectar (most excellent very prolific); Pomegranate (a fine ornamental sort); Early of the Hill at 25c. per package; Allard's Superb Muskmelon; Beechwood (an early, fine variety); Huntington's (new); Goodwin's Imperial Watermelon; Skillman's Fine Netted (probably the earliest of the green-fleshed sorts); Orange Watermelon (skin peels off like an orange); Jenny Lind (very early, fine); Large Persian Muskmelon. Each of the above at 15 cts. per package. Christiana (good, one of the earliest); Nutmeg (true, very fine); Green Citron; Black Spanish Watermelon; Mountain Sprout Watermelon (excellent); Mountain Sweet Watermelon (early and excellent, very popular); Apple Pie (for preserves). Each of these at 10 cts. per package. All of the above will be sent postage paid, with full directions for cultivation. JAMES J. H. GREGORY, Marblehead, Mass.

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NEW CATALOGUE OF OVER

100 Splendid Varieties

Of this popular bulb is now ready for distribution. Having a large stock to dispose of, we now offer them at

PRICES REDUCED

from former years.

Priced Catalogues sent to all applicants enclosing a stamp. ANDREW BRIDGEMAN,
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SEEDS. SEEDS. SEEDS.

Garden, Field and Flower Seeds of every variety, choice and reliable. **Spring Wheat, Rye and Barley.** **White and Black Heavy Seed Oats.** **Seed Potatoes.** **Trees, Plants and Roots** furnished of all kinds. **Choice Dahlias, Verbenas, &c.**

Peruvian, Ammoniated, Pacific & Fish Guano. **Bone Dust, Phosphate** and other fertilizers.

Farm and Garden Implements of every variety, for sale by **JOHN VANDERBILT**, Union Agricultural Warehouse, 23 Fulton-st., (near Fulton Market) New York.

SEED OATS, SEED OATS,

For sale by

GRIFFING BROTHER & CO.,
58 & 60 Courtland-st., New-York.

BONE TAFEU.

Manufactured by the Lodi Manufacturing Co., from **BONES, DRIED NIGHT SOIL** and guano ground fine.

The Bone is well known for its lasting effects, and the night soil and guano for their quick action, the combination producing a fertilizer EQUAL to guano, and far superior to Superphosphate or ground Bones. Farmers using it during the past two years, speak of it in the highest terms. Price \$45 per ton. Packed in bbls. of 200 lbs. each.

Address LODI MANUFACTURING CO.,
66 Courtland-st., New-York.

Bruce's Concentrated Manure.

Those who have used the above valuable fertilizer the past year, give it the preference over

No. 1 Peruvian Guano, Bone, or Poudrette. In the year 1862, some **fifty tons** were sold. Last year orders came in to the amount of **four hundred tons**, only half of which could be filled. This year we shall manufacture **ONE THOUSAND TONS**.

Its "component" parts are:

40 per cent. of Animal fibre and Blood.

40 per cent. of pure Ground Bones.

20 per cent. of Absorbents.

The absorbents are Charcoal and Gypsum.

Price **\$45 Per Ton**, packed in barrels 250 lbs. in each. Send for Circular. Send your orders to

GRIFFING BROTHER & CO.,
58 and 60 Courtland-st., New-York.

Lodi Poudrette.

THE LODI MANUFACTURING CO., with an experience of 24 years, again offer a uniform article of Poudrette, prepared from the night soil of the City of New-York.

The experience of thousands of customers attests to the fact that it is the **cheapest** and the **very best** fertilizer in market. It is particularly adapted for Tobacco, Corn, Potatoes, and Garden crops. A pamphlet containing directions for use, &c., may be had free by addressing a letter to the

Lodi Manufacturing Co.,
66 Courtland-st., New-York,

We call attention to the following experiences of practical farmers, who have used Poudrette for years:

MELROSE, near Hickory, Harford Co., Md.
October 13, 1863.

Agents Lodi Manufacturing Co.

Gents: I have used the Lodi Poudrette on corn and potatoes. I tried it in the side of barn-yard manure, and I think the Poudrette produced ONE-THIRD MORE CORN. I consider it a very cheap fertilizer.

JAMES BILLINGS & CO.

MAGNOLIA, Harford Co., Md., October 31, 1863.

Agents Lodi Manufacturing Co.

Dear Sirs: In answer to your request respecting my opinion of the Lodi Poudrette, I used it last spring on corn and all kinds of garden vegetables, and I consider it the cheapest and best manure for the hill I ever used, although I have used Peruvian Guano, Phosphate and many other fertilizers. I would give it the preference to any other.

Yours respectfully EDWARD SWEETING.

WOODVILLE, Prince George Co., Md.
October 26, 1863.

Agents Lodi Manufacturing Co., Baltimore, Md.:

Dear Sirs: To the result in my application of the Lodi Poudrette, I applied it to a portion of my corn in the hill, according to directions. It caused a very rapid growth, and promises a good yield for a very bad season, I think at least one-third more than I ever raised on the same field before. My opinion is, that it is preferable to Peruvian Guano for CORN.

Yours respectfully JOS. C. THOMAS.

PINK IRON WORKS, Pa., 7 Mo., 3d, 1863.

JAMES R. DEY, Pres. Lodi Manufacturing Co., N. Y.

Respected Friend: Thine of the 26th ult. has been received asking what our experience was in the use of the BONE-TAFEU. We put the thirty barrels on about nine acres of land, harrowing it in, before drilling in the wheat, and are so far well satisfied with it, as it appears to be equally as good in any other part of the field, (about 40 acres), which was well manured with good barn-yard and stable manure. Altogether likely to be a good crop, being now nearly ripe.

Respectfully thy friend, JOSEPH BAILEY.

NORTHVILLE, Conn., Litchfield Co., Dec., 1863.

Agent Lodi Manufacturing Co.

I put four barrels of Poudrette upon an acre of ground this year, from which I raised a crop of Tobacco amounting when sold to a little over \$400. I might also state that I sowed it in a bed in one corner of the lot, from which I raised the earliest plants, and sold enough, beside what I used, to amount to \$100. Thus you see, I realized over Five hundred dollars from an acre of ground. There was no other manure of any consequence upon the lot. The Poudrette cost me, delivered, about two dollars per barrel or eight dollars in total. Yours very respectfully, CHARLES BARTRAM.

NEW MILFORD, Litchfield Co., Conn., Dec. 15, 1863.

Agent Lodi Manufacturing Co.

Dear Sir: I was induced by your Agent at Northville, Mr. F. S. Bartram, to try the Poudrette upon Tobacco this last year, which resulted most satisfactorily to me. I also tried the Super Phosphate of Lime and a mixture of hen Manure and Plaster, side by side with the Poudrette. The Tobacco where I put the Poudrette was much earlier, larger and better color, and I shall use the Poudrette in future, in preference to all other Fertilizers. Yours truly,

MARSHALL PLATT.

NORTHVILLE, Litchfield Co., Conn.

Agent Lodi Manufacturing Co.

I used the Poudrette upon Sorghum this year, and am so well satisfied with its results, that I shall use it in future. I also tried it upon Tobacco with good success.

Yours truly, EARLE BUCKINGHAM.

Extract of a letter from Messrs. Brush Brothers of FRESH

POND, N. Y., dated July, 1863.

"It has been very dry with us so far, and oats are very short; but where we used the Bone-Tafeu, they have grown faster than they have along side where there was none put. We could also see a big difference in the looks of the potato vines, as they were not only larger, but looked black and rank. We think it a good manure."

**TO FARMERS
AND OTHERS.**

We are manufacturing a **Genuine Article of VERY FINE BONE DUST, and RAW BONE SUPERPHOSPHATE OF LIME**, manufactured from unburned Bones containing all the Animal and Chemical Fertilizing Properties. Please address the Manufacturers, and get the Intrinsic Value of your money.

N. B. A Liberal Discount made to Dealers for Cash.
Address

A. LISTER & BRO.,

Newark, N. J.

AMMONIATED PACIFIC GUANO.

A real guano containing from seventy to eighty per cent of Phosphate of Lime, to which has been added by a chemical process a large percentage of Actual Ammonia so fixed that it can not evaporate, making it equal if not superior to any other fertilizer.

Pamphlets with copies of Analysis by Dr. Jackson, Mass. State Assayer, and testimonials from scientific Agriculturists showing its value can be obtained from

J. O. BAKER & CO., Selling agents,

57 Wall st., New-York.

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